PP 247

FINAL REPORT

of the

SELECT COMMITTEE ON ACCESS TO URINARY TRACT INFECTION TREATMENT

Tabled in the House of Assembly and ordered to be published on 27 September 2023

First Session, Fifty-fifth Parliament

1. EXECUTIVE SUMMARY

The Select Committee on Access to Urinary Tract Infection Treatment was established on 1 December 2022 pursuant to a resolution to inquire into and report on access to urinary tract infection treatment in South Australia. The committee was formed to investigate barriers to access to treatment and assess the applicability of implementing a service similar to Queensland's Urinary Tract Infection Community Pharmacy Service in South Australia.

Following advertising on social media, and in *The Advertiser* and regional newspapers, the committee received 151 submissions. The committee heard from 24 witnesses and travelled to Brisbane to see the Queensland service in action and speak to pharmacists, health administrators and users of the service.

Queensland was the first Australian state to allow pharmacists to treat uncomplicated UTIs, enabling sufferers to access antibiotics when they might not have been easily able to see a doctor, or for women who may have experienced symptom onset during the weekend or evening. Since the Queensland pilot, other states have followed suit and UTI pharmacy services have begun in New South Wales, the ACT, Victoria, and Western Australia. As recently as 14 September 2023, Tasmania announced that they were planning to allow pharmacists to supply UTI medication.

Based on the evidence provided to the committee, the recommendations provided support implementation of a similar UTI pharmacy service in South Australia. The committee has taken into consideration the work done in other jurisdictions that have, or are, trialling and implementing such programs and have produced recommendations that build on these learnings, to improve access to affordable and accessible healthcare for South Australian women.

Overwhelmingly, submissions received (~80%) were broadly in favour of a similar UTI community pharmacy treatment program being introduced in South Australia. The committee acknowledges the concern that some doctors' groups have raised regarding such a model and has carefully considered the evidence provided by these groups. The committee's recommendations put forward a South Australian program that is robust, well managed, well supervised and evidence based. It is the committee's considered view that allowing pharmacists to treat uncomplicated UTIs in some situations should be viewed as complementary to rather than a substitute for, the care provided by a trusted general practitioner and/or women's health specialist.

Primarily, the recommendations contained in this report seek to put patients first and reduce barriers to treatment for urinary tract infections.

2. INTRODUCTION BY THE CHAIR

Half of all South Australian women will suffer a urinary tract infection at some point in their lives. It will usually strike when they least expect it and when it is most inconvenient.

As a sufferer myself, I am all too familiar with the common symptoms of pain, discomfort, scalding urination and constantly feeling like a dash to the bathroom – even though it may be unnecessary. The symptoms are often sudden and play havoc with many women's busy lives, interrupting their ability to work, play, or care for loved ones.

Effective treatment of a UTI relies on timely access to antibiotics, to ensure complications such as kidney infections and hospitalisation are avoided. In South Australia, antibiotics are prescribed by a GP. Being able to get that prescription has become more complicated in recent times due to a shortage of GPs, and fees are on the rise too, as more doctors stop bulk billing. With reports of increasing wait times to see a GP, getting access to timely treatment is proving a challenge for sufferers.

In 2020, Queensland was the first state in Australia to allow pharmacists to treat uncomplicated UTIs. A pilot enabled pharmacists who undertook specific training to supply antibiotics to women aged 18-65 who presented with UTI symptoms and met criteria based on empiric treatment guidelines. In July 2022, this service was made permanent in Queensland. In the fourteen months since this time, New South Wales, the ACT, Victoria, Western Australia and Tasmania have followed, either via trial or implementation.

The committee's aim was to investigate the barriers to access to treatment South Australian UTI sufferers face, and whether a similar pharmacy service would be appropriate in this state.

The committee received 151 submissions, both via email and a web-based submission form. We heard from 24 witnesses including sufferers, regulators, anti-microbial resistance experts, the pharmacy and medical peak bodies and Aboriginal health experts. A fact-finding trip to Brisbane enabled us to speak to participating pharmacists in their pharmacies and understand first-hand the customer and pharmacist's experience of the program. The committee also heard from consumers in Queensland as well as health regulators and conducted an informal meeting with Queensland's Chief Allied Health Officer.

The evidence received by the committee showed strong support for such a model in South Australia, both from UTI sufferers and pharmacists. The committee took its time to listen to those who expressed concerns regarding a UTI pharmacy service, and we have taken their apprehensions into consideration in informing the recommendations.

Based on this evidence, the committee recommends that antibiotic medication to treat UTIs is made available from pharmacists in South Australia under a model similar to Queensland's Urinary Tract Infection Pharmacy Service. The committee has made 29 recommendations to ensure this service is safe and effective, is only available to those who meet appropriate criteria, and is only provided by pharmacists who have undertaken additional training.

The committee considers this service will complement existing health services – namely that offered by South Australian GPs. This service is not designed to replace GPs but rather to provide women an additional avenue for safe and prompt treatment. Crucially, under the proposed model, patients presenting to pharmacists who are not likely to be suffering a UTI or who have complicating factors, will be referred to a GP for further assessment. Men, children, and people aged over 65 will be ineligible for the service.

The committee extends its sincere thanks to those who provided evidence to our inquiry. Many witnesses are experts in their chosen field and the committee has benefitted from their willingness to share their knowledge.

I would also like to thank the Hansard team at Queensland's Parliament for their assistance during our hearings in Brisbane. The committee members and staff appreciate their willingness to assist, which realised savings for SA taxpayers while maintaining a high standard of transcription.

We want to particularly thank those patients who wrote to us or appeared in person sharing their personal stories. Although suffering a UTI is very common and should not be a source of any embarrassment, we recognise that it can be uncomfortable to talk with strangers about an intimate health concern. The insights from sufferers were very helpful to the committee and we commend them each for coming forward to assist the Parliament and public.

Jayne Stinson MP

Chair

27 September 2023

CONTENTS

3. ESTABLISHMENT OF THE COMMITTEE

3.1 Appointment of the Committee

On Thursday 1 December 2022, on the motion of Ms Jayne Stinson MP, Member for Badcoe, the House of Assembly passed a resolution to establish a select committee to inquire into and report on access to urinary tract infection treatment in South Australia.

The focus of the inquiry was on examining pharmacy treatment models for urinary tract infection medication, primarily the model recently adopted in Queensland, and querying its applicability in South Australia.

3.2 Membership

The membership of the select committee appointed by the House of Assembly consisted of the following members:

Ms Jayne Stinson MP	Member for Badcoe	Chair
Sarah Andrews MP	Member for Gibson	
Ms Catherine Hutchesson MP	Member for Waite	
Hon David Pisoni MP	Member for Unley	
Ms Penny Pratt MP	Member for Frome	

Ms Stinson was elected Chair of the select committee. Mr Patrick Dupont was assigned the role of Secretary and Dr Amy Mead was assigned the role of Research Officer to the committee.

3.3 Terms of Reference

The Select Committee's Terms of Reference, as agreed by the House of Assembly, were:

That this House establish a Select Committee to inquire and report into:

(a) Barriers facing sufferers of Urinary Tract Infections (UTIs) in gaining timely access to treatment;

(b) The applicability of implementing Queensland's Urinary Tract Infection Community Pharmacy Service in South Australia; and

(c) Any other related matter.

3.4 Disclosure of Evidence

Pursuant to Standing Order 339, the House of Assembly ordered that the select committee have power to authorise the disclosure or publication, as it saw fit, of any evidence presented to the committee prior to such evidence being reported to the House.

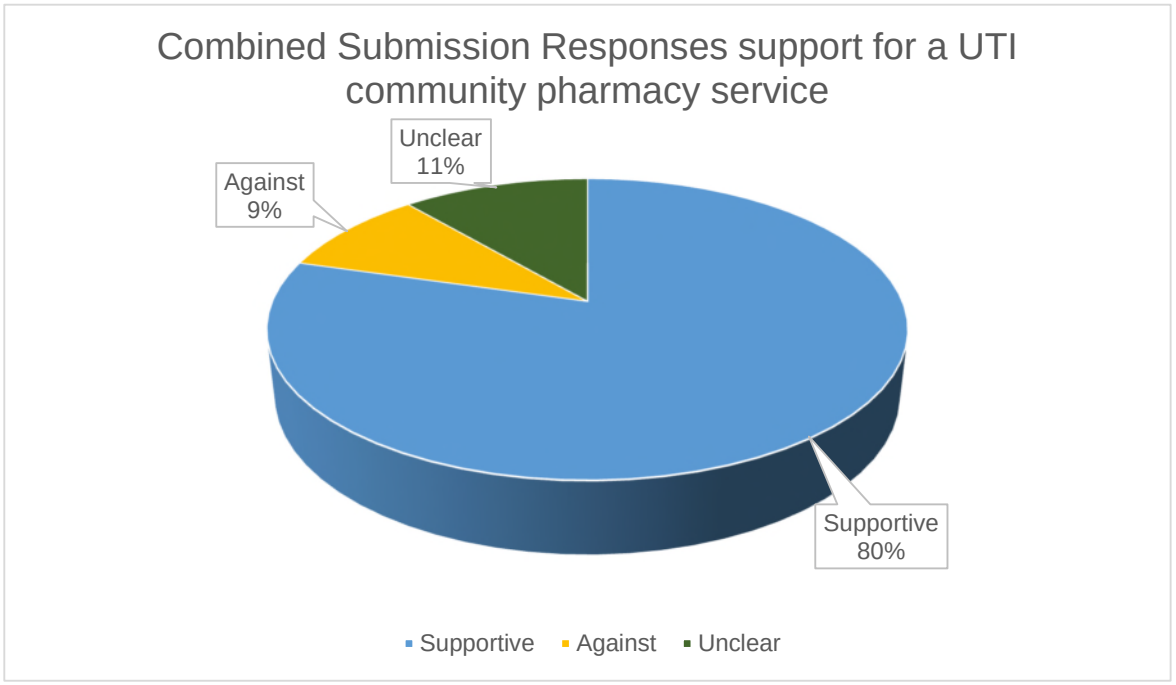
3.5 Conduct of Inquiry

Advertisements calling for submissions featured in the Saturday 10 December 2022 edition of *The Advertiser*, and a range of other publications and regional newspapers around the same date. An example of one of the advertisements (describing the Terms of Reference) is provided in Appendix 8.1.

The inquiry was also promoted via the Parliament of South Australia's website and social media accounts (Facebook, Instagram and Twitter). Some committee members also chose to share calls for submissions via their social media accounts.

The committee received 31 submissions via email (see Appendix 8.2 for list), and also made use of Microsoft Forms to generate a survey type template allowing respondents to make short-form submissions quickly and easily. The Forms survey template attracted 120 additional respondents (see Appendix 8.3 for list). The Forms template is provided in Appendix 8.5.

The graph below codes submissions according to whether they broadly supported the proposal to implement a UTI community pharmacy service in South Australia, whether submissions were against a community pharmacy service or whether support for the UTI pharmacy service was unclear or more nuanced (for example, some submitters raised potential risks associated with a community pharmacy UTI treatment service, but then suggested ways to mitigate these risks). **Approximately 80% of the combined responses received were broadly supportive of the proposal to implement a UTI treatment community pharmacy service.**



Combined Submission responses		
Supportive	80%	120
Against	9%	14
Unclear	11%	17
Total	**100%**	**151**

In the interests of privacy, the committee resolved to redact surnames from the published submissions of UTI sufferers given the sensitive and personal nature of the subject of the inquiry, and inclusion in submissions of personal medical information. Both names were redacted for those who requested their names not be published. Names were left on published submissions from pharmacists or GPs (or in a similar professional capacity). Several pharmacists providing submissions did not explicitly disclose their occupation in their submissions, but were able to be identified by their email address (e.g. "jane.citizen@localchemist.com.au"), so their occupation was noted.

The committee met on 13 occasions, of which 9 were to hear oral evidence from a total of 24 witnesses. An additional hearing was held in Brisbane with a further 4 witnesses giving evidence on the record. All witness hearings were transcribed by Hansard. Corrected Hansard transcripts of the hearings are available on the committee website.

The committee undertook one site visit to Brisbane in late July 2023.

Face-to-face committee meetings and hearings were held in Old Parliament House, Adelaide with 1 hearing held in Brisbane at Queensland Parliament House. From time to time, witnesses and Members chose to attend meetings and hearings electronically via Microsoft Teams. A list of hearings is provided in Appendix 8.4.

3.6 Abbreviations

ABS	Australian Bureau of Statistics
ACP	Australasian College of Pharmacy
AHCSA	Aboriginal Health Council of South Australia
ED	Emergency department
GP	General Practitioner
MHR	My Health Record
OCP	Oral contraceptive pill
PSA	Pharmaceutical Society of Australia
RACGP	Royal Australian College of General Practitioners
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
SAAGAR	South Australian expert Advisory Group on Antimicrobial Resistance
UTI	Urinary tract infection
UTIPP-Q	Urinary Tract Infection Pharmacy Pilot - Queensland

4. RECOMMENDATIONS

Summary list of recommendations

The select committee has developed 29 recommendations intended to ease the burden of UTIs by implementing a program in South Australia allowing pharmacists to provide treatment (a short course of antibiotic medication) to women aged 18-65 suffering from an uncomplicated UTI. These recommendations are grouped under the following categories:

- Implementation
- Training of pharmacists for UTI medication supply
- Promotion and education
- Privacy and confidentiality
- Costs to consumers
- Technology and data
- Ministerial Powers and review
- Other related matters

Implementation

Recommendation 1: Antibiotic medication to treat urinary tract infections (UTIs) is made available from pharmacists in South Australia under a model similar to Queensland's Urinary Tract Infection Community Pharmacy Service, restricted to those meeting the following criteria:

a. women aged 18 – 65,
b. who are deemed to be likely to be suffering an uncomplicated UTI after assessment by a pharmacist and
c. who are at low risk of complications, as assessed by a pharmacist.

Recommendation 2: Three medications should be made available under the scheme:

1. Trimethoprim
2. Cephalexin
3. Nitrofurantoin

Recommendation 3: That the model is implemented as soon as practicable via regulatory change, *without* the need for an additional trial period or pilot scheme, but *with* an outcome assessment mechanism.

Recommendation 4: As soon as practicable, the Minister directs the Chief Pharmacist to establish and lead an Implementation Team.

Recommendation 5: That the Implementation Team includes representatives from relevant SA Health professionals as well as doctor and pharmacist representatives, regional representation and patient representation.

Recommendation 6: That sufficient funding and resources are made available to the Implementation Team to ensure timely and effective implementation, including sufficient engagement with relevant parties.

Training of pharmacists for UTI medication supply

Recommendation 7: That an accredited online training course is made available to SA pharmacists for a period no less that one month prior to the public launch of the scheme.

Recommendation 8: That existing online training programs offered through the Australasian College of Pharmacy, the Pharmacy Guild of Australia and/or Pharmaceutical Society of Australia, which are accredited interstate, are modified as needed for SA and accredited for use in SA.

Recommendation 9: That any future training programs include education on the following points:

a. Anti-microbial resistance management
b. The importance of referring a patient to a GP if risk factors are present or a pharmacist is not confident that an uncomplicated UTI is a likely diagnosis
c. The importance of ensuring privacy and confidentiality for patients in-pharmacy
d. The desirability of interior design features that support patient privacy (e.g. private consulting rooms, separate quiet consultation areas or privacy shields at counters)
e. The importance of accurately and confidentially recording patient interactions and providing records of interactions or supply to patients upon request, and/or via My Health Record wherever appropriate
f. Processing complaints and the proper reporting of adverse outcomes through established avenues.
g. Cultural competency and sensitivity

Recommendation 10: That:

a. an agreement is entered into with the Australasian College of Pharmacy, the Pharmacy Guild of Australia and/or Pharmaceutical Society of Australia to provide the online training course free of cost to all SA-based pharmacists (regardless of their professional association membership) for a set period (e.g. 3 – 6 months)
b. that subsequent training courses are paid for by the employer

Promotion and education

Recommendation 11: That the scheme is publicly advertised by the government, and appropriate awareness and advertising methods are considered to target 18 – 65-year-old women, including but not limited to:

a. news media
b. mainstream paid advertising
c. social media and app-based advertising e.g. parenting and relationship apps
d. location-based advertising e.g. bus shelters and billboards
e. newsletter and electronic communication through organisations or venues busy women are likely to interact with as part of their daily lives e.g. school-based communication, universities, sports clubs, community centres and major employers.

Recommendation 12: That in-store advertising is funded by pharmacies themselves or their relevant professional organisations (e.g. counter displays, posters, online advertising and

point-of-sale signage such as dangling signs on shelves stocking urine alkalinisers or cranberry supplements).

Recommendation 13: That educational materials are provided to all registered GPs in SA *directly* informing them of the program and the likelihood that pharmacists may refer complicated UTI cases to GPs.

Recommendation 14: That promotional messaging by SA Health stresses that the program is one more way to access treatment, not replacing GP services.

Recommendation 15: That educational materials are provided to all pharmacists and pharmacy owners, including information on how to access free online training for a limited time.

Recommendation 16: That a website is developed with a searchable database of SA pharmacies offering UTI consultations, including a searchable map function.

Recommendation 17: That appropriate UTI health education and promotion is provided in Aboriginal communities or towns with higher-than-average Aboriginal populations, due to the higher rate of UTIs among Aboriginal people and higher rate of complications.

Privacy and confidentiality

Recommendation 18: That regard is given to privacy and confidentiality for patients by pharmacists and pharmacy owners, e.g. that a private consulting room is utilised where possible, or measures taken to ensure the comfort and confidentiality of the patient in separate areas to other counter customers.

Costs to consumers

Recommendation 19: That under the scheme, pharmacists are able to charge a consultation fee in addition to the cost of any medication that is supplied, noting that this fee is generally around $20, and that the patient is made fully aware of the costs prior to the consultation.

Technology and data

Recommendation 20: That the Minister asks SA Health to work with software providers and pharmacy owners (or their representative bodies) to examine whether an automatic text message can be sent to patients 3 - 7 days after pharmacy consultation to follow-up with a patient and alert them to see a GP if their symptoms are not resolving. Though the committee feels this follow-up is desirable, further examination of this option is required in terms of technology and cost.

Recommendation 21: That the computer-based checklist and associated software similar to that utilised in Queensland is adopted in SA and adapted as needed for SA.

Recommendation 22: That appropriate and confidential patient records are retained by the pharmacy.

Recommendation 23: That pharmacy dispensing records are uploaded to My Health Record, if a patient has such a record.

Recommendation 24: That a record of the treatment and consultation are provided to the patient on request. This may include a copy of the checklist completed by the pharmacist during the consultation. A patient may choose to share this with their GP or health professionals.

Ministerial powers and review

Recommendation 25: That de-identified data is drawn from the in-pharmacy checklist completions by the software providers or administrators and provided to the Minister on a regular basis for the first 12 months of the program and annually after that. Downloaded data may include the number of patients provided medication, which medication is provided, age and suburb of consumer and immediate referrals to GPs.

Recommendation 26: That the operation of the scheme is reviewed 24 months after implementation and a report is provided to the Minister.

Recommendation 27: That the Minister has the power to add or remove or substitute approved medications in urgent situations, such as shortages of specific antibiotics, but must advise the Parliament at the earliest opportunity.

Other related matters

Recommendation 28: That the Minister considers allowing prescription renewal by pharmacists for the oral contraceptive pill.

Recommendation 29: That the Minister considers the outcomes of the 'North Queensland Community Pharmacy Scope of Practice Pilot' assessing the provision of 25 additional medications by pharmacists and the appropriateness of implementation in SA.

5. DISCUSSION

5.1 Introduction

On Tuesday 2 March 2021, on the motion of Ms Jayne Stinson MP, Member for Badcoe, the House of Assembly passed a resolution to establish a select committee to inquire into and report on access to urinary tract infection treatment in South Australia. Ms Stinson was motivated by her own experiences with UTIs, and that of her peers and constituents, and wanted to bring the Parliament's attention to barriers to treatment.

Urinary tract infections are very commonplace. Worldwide, UTIs are the most common form of bacterial infection in humans.[1] It is estimated that half of all Australian women will experience a UTI in their lifetime, with one in three women requiring treatment for a UTI before the age of 24.[2] Due to their prevalence, UTIs account for a significant number of presentations to general practitioners and emergency departments. Symptoms of a UTI can be debilitating and all-consuming, putting significant strain on caring and work responsibilities.

In South Australia, an appointment with a doctor is currently required to obtain a prescription for antibiotics to treat a UTI. The ongoing shortage of general practitioners in Australia has made it challenging for those with urgent issues to be seen promptly (a problem that is exacerbated outside of metropolitan areas).[3] Additionally, the reduction in the number of GPs who continue to bulk bill, mean that patients on restricted incomes often face longer wait times or defer treatment.[4] However, prompt treatment is vital, as if a UTI is left untreated, bacteria can spread to the kidneys and cause a more severe infection. In rare cases, a UTI can develop into sepsis.[5]

The select committee's terms of reference sought to assess these barriers and investigate how sufferers of urinary tract infections in South Australia can gain more timely access to appropriate treatment, primarily examining how this could be facilitated through a model similar to Queensland's Urinary Tract Infection Community Pharmacy Service. Since Queensland's adoption of a UTI treatment service in community pharmacies, other Australian jurisdictions have followed suit, either via a pilot, trial, or implementation model.

5.2 About urinary tract infections

Urinary tract infection (UTI) is an umbrella term used to refer to a bacterial infection of any part of the urinary system. UTIs occur when germs (such as E. coli) enter the urinary tract, and multiply, resulting in irritation and inflammation. This inquiry focussed on cystitis, the most common UTI in women.

---

[1] Institute for Molecular Bioscience, *Common bacterial diseases*, University of Queensland website, n.d., accessed 1 September 2023.
[2] Jean Hailes, *Urinary tract infections (UTIs)*, Jean Hailes for Women's Health website, 2023, accessed 1 September 2023.
[3] Deloitte Access Economics, *General Practitioner workforce report 2022*, Deloitte Access Economics for Cornerstone Health, May 2022, accessed 1 September 2023.
[4] L Stone and J May, "6 reasons why it's so hard to see a GP", *The Conversation*, 9 February 2023, accessed 5 September 2023.
[5] Institute for Molecular Bioscience, *Common bacterial diseases*.

Cystitis affects the bladder, causing inflammation, and the main symptoms of an infection include:

- Pain or burning sensation while urinating (dysuria)
- Feeling a need to urinate more frequently, or more urgently – and possibly being unable to, or only passing a few drops
- Feeling as though the bladder is full even after urinating
- Cloudy, bloody or smelly urine
- Pain or discomfort in the lower abdomen

If an infection does travel from the bladder to the kidneys, kidney infections (pyelonephritis) can cause kidney pain (felt in the back or side of the body), fever or chills, and nausea and vomiting. Pyelonephritis is considered a more serious infection as it can cause complications such as damage to the kidneys if treatment is not sought promptly.[6]

Paracetamol or ibuprofen, and the use of hot water bottles or wheat bags, can offer some pain relief, however UTI symptoms can greatly interfere with a sufferer's daily activities, often requiring leave from work or study.

Drinking plenty of water and emptying the bladder completely when urinating can help flush the infection. Cranberry juice or supplements have long been touted as a cure for UTIs, but a 2012 review of studies found that neither are helpful in avoiding infection.[7] Studies into its use during infection are inconclusive, but patients should speak to their doctor, as cranberry juice or supplements should be avoided if taking some medications, such as Warfarin.

SA Health cautions that the effectiveness of urinary alkalinisers like Ural is not proven, and that their use can interact adversely with some antibiotics, so it is recommended to consult a doctor or pharmacist prior to use.[8]

While some very mild UTIs will pass without medical intervention, antibiotics will generally be prescribed. In South Australia, antibiotics for a UTI can presently only be prescribed by a doctor (with some exceptions for nurse practitioners and administration by Aboriginal Health workers).

While UTIs are not only experienced by women, UTIs in men and children are not classed as 'uncomplicated' infections. During the course of the inquiry, the committee focussed on 'uncomplicated' UTIs. According to SA Health guidelines, an uncomplicated UTI is an acute symptomatic infection in non-pregnant women with a structurally and functionally normal urinary tract.[9] Generally, UTIs experienced by those outside of this cohort are not classed as 'uncomplicated'.

5.3 Barriers to timely access to treatment

Urinary tract infections can be "self-limiting" in that depending on their severity, a sufferer may find their symptoms precluding them from work, socialising, travel, or caring duties. Due to the

[6] Fact sheet Urinary Tract Infections, Kidney Health Australia, December 2018, accessed 1 September 2023.
[7] ABC Health and Wellbeing, 'Cranberry for UTI's: What's the evidence?', *ABC News*, 24 November 2016, accessed 21 December 2022.
[8] SA Health, Urinary tract infection (UTI) - including symptoms treatment and prevention, Government of South Australia | SA Health, accessed 21 December 2022.
[9] SA Health, Urinary Tract Infections (adult): Empirical Treatment Clinical Guideline Version 2.1, Government of South Australia | SA Health, 25 August 2022, accessed 9 February 2023, p.10.

aforementioned GP shortage, some sufferers may have to wait some days for a doctor's appointment, which is impractical when experiencing UTI symptoms.

Data from the ABS Patient Experience Survey demonstrates that in recent years, wait times to see a doctor have increased significantly. In the 2021-22 financial year, 23.4% of respondents reported waiting longer than they felt acceptable for an appointment with their GP, compared to 16.6% of respondents in the 2020-21 financial year. 39.1% of respondents reported that they waited 24 hours or more to see a GP for urgent medical care, an increase compared to 2020-21 at 33.9%. Additionally, patients are reporting that they have trouble booking in to see their preferred GP, with 32.8% of respondents reporting that this was the case on one or more occasions, up from 25.5% in 2020-21.[10]

In submissions to the committee, UTI sufferers expressed their frustration dealing with long waits to see the doctor while experiencing painful symptoms:

> *Patients that have experienced UTI's (sic) before should not need to make an appointment to see a GP to get a script for medication. UTI's (sic) can come on rapidly and GP appointments can take days. UTI's (sic) are extraordinary painful and debilitating.*[11]

> *It's literally a pain in the ass to have to wait for a doctor to be available just to say "I have a uti (sic)" and get support*[12]

> *[…] it can be debilitating until you have access to medication. It can take days to get an appointment.*[13]

> *UTIs are such an uncomfortable Illness to have that sometimes the wait or 24 hours to get into a doctors appointment can be detrimental in one's health and work capacity deteriorating*[14]

As well as increased wait times, patients are paying more out of pocket to see a GP. The RACGP reported in May 2023 that quarterly data showed overall GP non-referred attendances had a bulk-billing rate of 78.1%, a decrease of 10% based on the same period last year (88%).[15] However, whether or not a patient is bulk billed can depend on a number of factors, namely whether or not they have access to a bulk billing doctor in their area, and that clinic's availability, and fee policy (some clinics limit bulk billing to seniors, concession card holders, or children).[16] The cost of seeing a GP is was touched on in a submission from Deb, who wrote:

> *[…] Why is it that I have to not only wait (sometimes) a day or two to pay $85 to see a GP for a reoccurring condition and clog up an already busy and expensive system for something that can be dealt with by a pharmacist?*[17]

These factors – both waiting times and fee disparities – complicate access to treatment for UTI sufferers. For some, waiting for a GP, or paying an out-of-pocket fee to see one in their

---

[10] Australian Bureau of Statistics, Patient Experiences 2021-22 financial year, ABS website, 18 November 2022, accessed 10 August 2023.
[11] Name removed, Forms submission 2.
[12] Name removed, Forms submission 4.
[13] Name removed, Forms submission 8.
[14] Name removed, Forms submission 32.
[15] J Attwooll, 'Further downward spiral in bulk billing rates', *newsGP*, RACGP website, 17 May 2023, accessed 10 August 2023.
[16] P Breadon and L Fox, 'If you live in a bulk-billing 'desert' it's hard to see a doctor for free. Here's how to fix this', *The Conversation*, 21 April 2023, accessed 10 August 2023.
[17] Deb, Forms submission 119.

area, may not be an option, or pain might be so severe, that they feel compelled to visit an emergency department. With rising costs of living, this is especially pertinent. This was reiterated by Paul, a pharmacist keen to offer treatment:

> *[…] working in one the lowest socio economic parts of the state many, many, of my customers do not have the money to pay for an unscheduled, non bulk billed appointment. Hence health outcomes are either poor or the (sic) present at the ED.*[18]

SA Health were able to provide the committee with data that showed that in the 2021-22 financial year, there were 8,864 emergency department presentations with a kidney and urinary tract infection diagnosis in South Australia.

Unfortunately, data showing whether patients presenting at ED had attempted to get treatment from a GP was unavailable, however, a submission received by the committee from Karen, a member of the public, referenced this quandary:

> *The barriers I have encountered while suffering from a UTI are:*
> *- Lengthy waits at a hospital department, and then being sent to a pharmacy to obtain antibiotics.*
> *- Lengthy wait to obtain an appointment at a GP, and then being sent to a pharmacy to obtain antibiotics.*
> *- Knowing from previous experience I have a UTI and not being able to obtain appropriate medication without a script, sometimes resulting in hours and hours of discomfort.*
>
> *Should South Australia follow the model currently used in Queensland would to me mean: The inconvenience of having to wait to have an appointment with a GP or a lengthy wait at an ED, while knowing from experience that it is a UTI, and being in considerable discomfort, having the ability to attend my local Community Pharmacy, with whom I have a relationship as an existing customer to receive professional and prompt medication/antibiotics to relieve the pain and initiate the healing process is paramount.*
>
> *Hence I would not attend an ED therefore freeing up time for more urgent injuries or illness.*[19]

These sentiments were echoed by another submission, whose spouse works in an ED:

> *Although I live in central Adelaide, it is challenging to get a fast appointment at a Dr. This means necessary medical assistance is delayed I wouldn't go to the emergency dept but my emergency nurse husband tells me this occurs regularly. This condition is easily treated with fast application of medicine which could safely be provided by pharmacists. The result would be relief to many women suffering this common, painful condition. It would also ameliorate congestion in ED and doctor's surgeries*.[20]

Other respondents reported disruption to their work caused by the symptoms, and how symptoms can often strike outside of business hours, when an emergency department is the only viable option:

> *Access to ED is not the best service option for this not infrequent problem. Personally I waited 3 hrs in ED on a Sunday evening, the physical urgency compounded by the*

[18] Paul Drury, Forms submission 79.
[19] Karen, submission.
[20] Name removed, Forms submission 6.

> *fact I had work the next day and as a casual employee don't have sick leave. UTIs treated efficiently mitigate ongoing health problems and the symptoms can readily be addressed with a urine test and prescribed treatment, ideally from a chemist or nurse. Antibiotics start to take effect within 24 hours. As usual if symptoms persist see your doctor.*[21]

The committee notes that in removing barriers to access to UTI treatment by offering a pharmacy service, does not render modes of treatment like GP services obsolete: rather, a pharmacy service may be able to provide treatment when other options are unavailable to the patient. Some medical groups have advised that patients are triaged by clinic staff when contacting their GP – that if they discuss their symptoms when trying to make an appointment they will be seen more quickly, with Dr Sian Goodson from the RACGP telling the committee,

> *What we find already in primary care is, although patients may not be able to book online for a same-day appointment, if patients ring their practice and explain the symptoms that they have got, most GP practices will accommodate that patient on that day. Certainly, within my practice, we have a very sensible triage system. If a woman phones up with UTI symptoms, they will be seen on the day, so access perhaps is better than some of the reported findings.*[22]

This is dependent on the practice, however, and dependent on the patient's willingness to discuss their symptoms with clinic staff. Ms Nicki King spoke to the committee about the delays she has faced when trying to get treatment for a UTI:

> *Sometimes I just literally cannot get in to see anyone for a week, it could be. If you progress as quickly as I do sometimes, it can be excruciating. It just takes you out of being able to function at all. It's not good.*
>
> *[…] as anyone with a UTI would know, you basically spend much of your time on the toilet, so you can't leave the house, you can't go anywhere, you can't work. Unfortunately, as lovely as a lot of my clients are, they don't always understand and you can't always say, 'Hey, I've got a UTI so I can't leave the house today.' So there are things like that that really affect you. Being able to access faster care and being able to get onto some antibiotics quicker would be phenomenal.*[23]

The committee acknowledge that patients who have trouble obtaining an appointment with a local GP practice may turn to a telehealth provider. Since COVID, telehealth services in Australia have become more common. Some providers, such as Instant Scripts, GP2U, Doctors on Demand (to name only a few) now operate on an online or telehealth only provision, with no bricks and mortar practice. These services allow patients to book online, or may have a branded app, with a doctor for a consult either via video link or telephone. Some may have the patient answer a text-based questionnaire with little patient-doctor interaction. The doctor may be situated in another state, and prices vary for these services, but they are able to supply a electronic prescription quickly and without the patient leaving their home. Jacinta, a UTI sufferer, wrote about her experience with one of these services in a submission to the inquiry:

> *At the time to wait to get into see my doctor was over a week. I booked the appointment when my symptoms began and tried to manage my symptoms with paracetamol and lots of fluids at home while I waited. The symptoms were so disruptive, I was so*

[21] Margaret, Forms submission 46.
[22] RACGP hearing, p. 38.
[23] Nicki King hearing, p. 146-147.

uncomfortable it impacted upon my ability to work and my ability to manage my responsibilities at home. After a couple of days waiting for my GP appointment my symptoms progressed, I developed nausea and significant pelvic and lower back pain. In response I had to arrange an (sic) telehealth consult with an online company. I was able to get a call back from a doctor several hours later that day. I think our conversation lasted about 3 minutes. I gave a short description of my symptoms and the doctor made a quick diagnosis of pyelonephritis, following the delay in treating the original (uncomplicated) UTI. I paid for this consultation. I was asked for my local pharmacy name and the prescription for antibiotics was sent there. Unfortunately I did not realise my local pharmacy had closed early as it was a public holiday and I was unable to access my prescription until the next day. It was another very uncomfortable night.[24]

In their hearings with the committee, the RACGP and the AMA expressed concerns about these "on demand" services, with Dr Michelle Atchison, President of the AMA stating,

The AMA is extremely concerned about the businesses at the moment where you can get a script by email or telehealth without actually having a consultation with a doctor. We don't agree with that as a way of proper medicine. In fact, AHPRA, our governing body that looks after the regulation of what doctors should and shouldn't do, is very concerned about that as well. We certainly don't see that as an option that anyone should be taking.[25]

5.4 Patient feedback

As indicated in section 3.5 of this report, 80% of submissions were largely in favour of treatment for uncomplicated UTIs being available from pharmacists, as in Queensland's UTI pharmacy service. Furthermore, as the above submission excerpts and witness statements show, among UTI sufferers (sometimes referred to as "patients", or "users" in this report depending on the context) support for such a service is even greater. Of the 151 submissions received, 30 per cent (46 respondents) indicated that they have suffered from a UTI, and of this number, 93 per cent (43 respondents) stated that they were supportive of treatment being accessible through a pharmacy service. Only 1 respondent (2 per cent) indicated that they did not support a treatment for uncomplicated UTIs being available in a community pharmacy setting (4 per cent, or 2 respondents, did not indicate either way).

Several submissions explicitly spoke of their willingness to use such a service, including Jacinta, who wrote of her preference to see a pharmacist rather than use an online doctor:

If I was able to see a pharmacist for treatment as soon as I developed symptoms it is less likely the infection would have progressed and I would have spent less time out of action and in pain due to the symptoms. The doctor asked very few questions and there was no physical assessment as the consultation was over the phone. I am confident a pharmacist would be able to recognise the same symptoms I discussed with the doctor and could ask the required questions to confirm this diagnosis.[26]

Another submission, from Brianna, made reference to criticisms directed at the Queensland service, writing:

[24] Jacinta, submission.
[25] AMA hearing, p.27.
[26] Jacinta, submission.

As a sufferer of frequent UTI's (sic) I am so pleased to see that the issue of access to treatment is being considered by parliament.

It is very frustrating that currently you need a GP appointment to access the antibiotics needed to resolve the infection. Doctors costs have increased exponentially, making access for some very difficult. Doctors are not bulk billing as much anymore. I'm concerned that this will have a flow on effect into emergency departments for those who can't afford a doctor. For those that have recurring UTI's (sic) visiting a doctor is pointless. Doctors aren't (sic) even taking urine samples anymore and just handing out scripts. After all, with covid meaning many doctors appointments had to be done by phone, how could they? They are handing out scripts in good faith that the sufferer is telling the truth. […]

How about we use our common sense, take some pressure off already overloaded GP clinics and help people already struggling with increased cost of living to access the medicine they need.

The proposed changes are much needed and long overdue.[27]

5.5 Queensland's Urinary Tract Infection Pharmacy Service

The committee's terms of reference referred to "the applicability of implementing Queensland's Urinary Tract Infection Community Pharmacy Service in South Australia". The Queensland service was the first of its kind in Australia, with pharmacists who underwent specific training able to supply certain antibiotics for the treatment of acute uncomplicated cystitis to female non-pregnant patients aged 18-65 who were screened and met criteria.

This service was initiated due to a recommendation from *Report No 12 - Inquiry into the establishment of a pharmacy council and transfer of pharmacy ownership in Queensland* (16 October 2018), from the Queensland Parliament's Health, Communities, Disability Services and Domestic and Family Violence Prevention Committee. The committee recommended that "the Department of Health develop options to provide low-risk emergency and repeat prescriptions through pharmacies subject to a risk-minimisation framework". The Department of Health worked with staff from the Queensland University of Technology (serving as Provider to manage the pilot), and a consortium that also included representatives from James Cook University, Griffith University, the University of Queensland, the Pharmaceutical Society of Australia (QLD), the Pharmacy Guild of Australia (QLD) and international collaborators from Canada (University of Alberta) and New Zealand (Otago and Auckland). These international collaborators were selected due to similar programs operating successfully in their countries.

A program was developed and implemented, and the state-wide trial commenced 19 June 2020. It was intended to conclude 31 December 2021, but was extended a further six months during the evaluation period to ensure continuity of service delivery, and eventually made permanent in July 2022.

Under the program, the patient pays a $19.95 fee[28] for the consultation with the pharmacist, making the full fee for the service around $30-35 if medication was dispensed (medication is not subject to a Medicare rebate due to it being supplied outside of Medicare). Antibiotics were

[27] Brianna, submission.

[28] This fee was set at $19.95 for the QLD pilot but since the service was made permanent, the price set is at the pharmacy owner's discretion. The committee has heard that some pharmacists will waive it under certain circumstances, but typically, the cost remains around $20.

restricted to trimethoprim, nitrofurantoin, and cefalexin, with trimethoprim being first line, nitrofurantoin second, and cefalexin third.

Pharmacists were requested to follow up with patients 7 days after the drug was dispensed to them, to check that their symptoms had resolved. If the patient was still experiencing symptoms, they were verbally referred to their GP by the pharmacist. However, patients were sometimes unavailable when contacted.

5.6 Opposition to the Queensland model

A Steering and Advisory Group was formed as part of the UTIPP-Q process to assist the Consortium to "finalise the model, protocol and training requirements for the pilot".[29] This group consisted of the following stakeholders and representatives:

- Pharmacy Guild of Australia (QLD)
- Pharmaceutical Society of Australia (QLD)
- Pharmacy Board of Australia
- Pharmacy Defence Limited
- Australian Medical Association (QLD)
- Royal Australian College of General Practice (QLD)
- Australian College of Rural and Remote Medicine (QLD)
- Queensland Nursing and Midwifery Union
- Health Consumer QLD
- QLD Health Representative (Via CHO)
- Infectious Diseases Representative / Sexual Health

However, the AMA, the College of Rural and Remote Medicine and the RACGP declined to participate in the steering group due to their concerns regarding pharmacists "prescribing".

Doctors' groups have cited concerns that some of the symptoms for UTIs are the same as for other illnesses, such as sexually transmitted infections (STIs) like chlamydia, or pelvic abnormalities, and that these conditions may be missed by pharmacists. [30] However, the treatment guidance, as illustrated in the UTIPP-Q Final Report, details the cystitis symptoms shared with other conditions, but then elaborates on the further symptoms of those other conditions and cautions to "Refer the patient to a medical practitioner if symptoms of other conditions are present."[31] See below for example from the guidelines:

[29] L Nissen, E Lau, and J Spinks, Jean, *The management of urinary tract infections by community pharmacists: A state-wide trial: Urinary Tract Infection Pharmacy Pilot - Queensland (Outcome Report)*, Queensland University of Technology, 21 April 2022, accessed 18 January 2023, p. 20-21.
[30] J Attwooll, 'Tip of the iceberg': GPs highlight pharmacy UTI prescribing incidents, *newsGP*, RACGP website, 21 March 2022, accessed 15 December 2022.
[31] *UTIPP-Q Outcome Report*, p.65.

Table 1. Other conditions with similar symptoms

Cause	Symptoms similar to symptoms of lower urinary tract infection	Other symptoms
Vulvovaginal candidiasis	• Dysuria (when urine is in contact with vulvar skin)	• Vulvovaginal itch (most common symptoms) • Vulvovaginal soreness and burning • Vulvovaginal redness and swelling • Dyspareunia • Odourless vaginal discharge that may be thick and white, or watery

Doctors groups have also advised that they believe that urine testing should be employed before treating a UTI, however, as the UTIPP-Q Final Report points out, "The Australian Therapeutic Guidelines state that ***'for nonpregnant women with a first episode of acute uncomplicated cystitis, urine culture and susceptibility testing may not be necessary; empirical therapy can be started based on symptoms alone'***" [their emphasis].[32] In their submission to the committee, RANZCOG also wrote, "providers typically treat UTI empirically based on a clinical diagnosis, without sending a urine culture, as there is insufficient time to impact clinical decision making".[33]

5.7 Queensland committee visit

The committee spent two days in Brisbane meeting with pharmacists, users of the scheme and health administrators.

On Thursday 3 August 2023, the committee visited Ramsay Pharmacy Greenslopes, a 24-hour community pharmacy on the premises of the Greenslopes Private Hospital. Ms Lynne Phelan, Pharmacist Manager, discussed her and her staff's experiences with the program and showed the committee how the pharmacy's software allows pharmacists to go through the checklist with a patient. Ms Phelan inadvertently addressed the criticism of the service as she advised the group that she does turn patients away due to their not fitting the criteria, such as a woman who had a history of bladder surgery who she advised needed to visit a doctor, and a woman who could not rule out pregnancy.

After Greenslopes, the committee visited TerryWhite Chemmart Arana Hills, where members spoke to owner pharmacist Ms Karen Brown. Ms Brown took the committee in to her consulting room and staged a mock consult with the presiding member, demonstrating to the members how pharmacists employ the treatment guidelines to effectively screen patients. The committee was impressed by the judicious and thorough work done by the pharmacists it visited. The pharmacists' strict adherence to clinical guidelines and willingness to work collaboratively with general practice was evident.

[32] *UTIPP-Q Outcome Report*, p.18
[33] RANZCOG submission, p.5.

The next day, the committee met with staff from Queensland Health, and staged hearings at Queensland Parliament with two users of the Queensland service, as well as staff from the Australasian College of Pharmacy.

5.8 UTI pharmacy services in other Australian states

New South Wales

On 13 November 2022, New South Wales announced plans to fund a 12-month trial permitting trained pharmacists to provide medication (the same three antibiotics as provided by the Queensland service) for uncomplicated urinary tract infections. Expressions of interest were sought from pharmacists who wished to participate in the UTI trial.[34]

The University of Newcastle is leading the trial and is working in association with the University of Technology Sydney, Macquarie University, University of New England, Charles Sturt University, The George Institute for Global Health and the Hunter Medical Research Institute.[35]

More than 1000 pharmacies commenced providing treatment under the trial on 31 July 2023.[36]

While the criteria for treatment is the same as in Queensland (uncomplicated UTIs in women aged between 18 and 65 inclusive), the consultation cost is covered by the state government, so the user only pays for the medication.

Dr Nicole Higgins, RACGP President, stated to the committee that if the results of the NSW trial are positive, this would be seen as “evidence” and then it would be supported by the organisation.[37]

Later in 2023, this trial will also include resupply of the contraceptive pill to eligible women aged 18-35 who have been prescribed the pill for contraceptive purposes in the last two years by a doctor or nurse practitioner.[38]

Australian Capital Territory

5 pharmacies in the ACT have joined the NSW Health Pharmacy trial.[39]

Victoria

On August 3 the Victorian Parliament passed a bill to introduce changes to the Drugs, Poisons and Controlled Substances Act 1981 (Vic), to allow a statewide community pharmacist statewide pilot which will run for 12 months and is expected to begin in October 2023.[40]

---

[34] New South Wales Government | NSW Health, 'Pharmacy reform to expand community health care', NSW Health, 13 November 2022, accessed 15 February 2023.
[35] New South Wales Government | NSW Health, 'NSW Pharmacy Trial', NSW Health, 28 July 2023, accessed 1 August 2023.
[36] New South Wales Government | NSW Health, 'Information for the community - UTI treatment', NSW Health, 28 July 2023, accessed 1 August 2023.
[37] RACGP hearing, p. 42.
[38] 'NSW Pharmacy Trial'.
[39] 'ACT Pharmacy UTI and Contraceptive Pill Trial', ACT Government | Health, 8 August 2023, accessed 11 August 2023
[40] Premier of Victoria | The Hon Daniel Andrews, 'New Pharmacist Pilot To Deliver More Affordable Care', State Government of Victoria, 30 May 2023, accessed 1 June 2023.

The pilot will allow pharmacists who have elected to participate, and completed appropriate training, to be able to provide women antibiotics for uncomplicated UTIs. Treatment for some mild skin conditions, and continued supply of selected oral contraceptives will also be available under the pilot.

Participating pharmacies will be reimbursed for services provided, at a rate of $20 per service. There will be no charge to the consumer for the consultation. The price of the medication will be capped at the PBS co-payment rate. Documentation has indicated that antibiotics provided with be the same as in Queensland and New South Wales.[41]

The Victorian Department of Health expects that the Expression of Interest process for pharmacists will go live in September.[42]

Western Australia

Western Australia's pharmacy UTI service was implemented on 4 August 2023, with a Structured Administration and Supply Arrangement allowing for pharmacist-initiated treatment of uncomplicated urinary tract infections. Pharmacists must complete approved training.[43]

This service is not a trial or pilot, but follows the same tenets as the aforementioned services, with a slight change to the antibiotics on offer – cefalexin is excluded, and nitrofurantoin is first-line, with trimethoprim second. This is in line with local resistance patterns.[44]

Tasmania

As a result of the independent Pharmacy Scope of Practice Review commissioned by the Tasmanian Government, on 14 September 2023 it was announced a pharmacy UTI service would be initiated in the state.[45]

Northern Territory

At this stage, the Northern Territory has not announced plans for a pharmacy UTI service.

[41] State Government of Victoria | Department of Health, 'Victorian Community Pharmacist Statewide Pilot', Victorian Department of Health website, 20 September 2023, accessed 22 September 2023.
[42] ' 'Victorian Community Pharmacist Statewide Pilot'.
[43] Hon. Amber -Jade Sanderson, Minister for Health; Mental Health, 'Pharmacy option for UTI diagnosis for Western Australian women', Government of Western Australia, 4 August 2023, accessed 10 August 2023.
[44] Government of Western Australia | Department of Health, 'Pharmacist initiated treatment of urinary tract infections program', Department of Health, 2023, accessed 30 August 2023.
[45] Guy Barnett, Minister for Health, 'Women's health in focus as part of pharmacy reforms', Jeremy Rockliff, Premier of Tasmania website, 14 September 2023, accessed 15 September 2023.

6. RECOMMENDATIONS AND RATIONALE

Implementation

Recommendation 1: Antibiotic medication to treat urinary tract infections (UTIs) is made available from pharmacists in South Australia under a model similar to Queensland's Urinary Tract Infection Pharmacy Service, restricted to those meeting the following criteria:

a. women aged 18 – 65,
b. who are deemed to be likely to be suffering an uncomplicated UTI after assessment by a pharmacist and
c. who are at low risk of complications, as assessed by a pharmacist.

The committee unanimously recommends implementation of a urinary tract infection pharmacy service in South Australia. This recommendation is based on compelling evidence provided to the committee, both via written submissions and witness statements, as well as a site visit to Brisbane to see the Queensland service in operation. The committee supports implementation rather than a pilot or trial due to the outcomes and continued success of the Queensland service, as well as the work underway in other Australian jurisdictions offering UTI services in pharmacies.

Implementation of a UTI pharmacy service should be subject to appropriate training of pharmacists so that they can soundly assess women who present with symptoms of an uncomplicated UTI. Protocols surrounding their assessment should be rigid and based on empiric treatment guidelines. Those presenting with UTI symptoms who wish to access the service should only be able to access treatment if they meet the determined criteria: they should be between 18 and 65 years of age, have an anatomically female urinary tract, and be at low risk of complications. Pharmacists should be briefed with the full criteria during training but should also employ a checklist while with a patient and administering the service, in order to make a sound assessment. This is consistent with other jurisdictions providing a UTI treatment service. The summary of inclusion and exclusion criteria for pharmacist treatment of uncomplicated cystitis from the Australasian College of Pharmacy is provided in Appendix 8.6.

A patient presenting with an anatomically male urinary tract would be excluded from the pharmacy service, as UTIs in men are typically classed as complicated and require further investigation by a doctor. In older men they usually occur due to prostate problems, and in younger men because of a sexually transmitted infection.[46] Additionally, UTIs in babies and children also require further investigation as infection may indicate an underlying issue.

While pregnancy does increase the risk of developing a UTI, pregnant women are also excluded, as a UTI during pregnancy can cause premature birth and low birth weight, as well as high blood pressure for the mother. Antibiotics for pregnant women with a UTI need to be selected carefully, based both on the type of infection and how far along the pregnancy is. [47]

[46] Urinary tract infection (UTI), healthdirect Australia, n.d., accessed 28 July 2023.
[47] Pregnancy, Birth and Baby, 'Urinary tract infections (UTIs) during pregnancy', healthdirect Australia, n.d., accessed 6 September 2023.

UTIs in older women can be due to chronic conditions, medications, or incontinence, so should be managed by a medical doctor.[48]

Recommendation 2: Three medications should be made available under the scheme:

1. Trimethoprim
2. Cephalexin
3. Nitrofurantoin

The committee recommends that the three antimicrobial medications supplied under the scheme are limited to trimethoprim, cephalexin, and nitrofurantoin, in keeping with the Queensland model.

The committee seriously considered the evidence given by the South Australian expert Advisory Group on Antimicrobial Resistance (SAAGAR), who suggested that a South Australian scheme be limited to trimethoprim only. The Committee seriously assessed this suggestion, testing this view with several other expert witnesses and against interstate and international approaches to the number and range of antibiotics available. However, the committee urges consistency with other jurisdictions that are employing three medications, except for Western Australia. When SAAGAR spoke to the committee, they acknowledged that "it's not something that's hard and fast"[49], and that duration (and thereby compliance) is the most important factor when considering antimicrobial stewardship, and trimethoprim is a three-day course.

SAAGAR's submission advised that if the scope was to extend beyond first-line treatment, then they would caution that

> *strict adherence to an approved treatment protocol based on state-wide guidelines must be followed when selecting the most appropriate antibiotic, dose, and duration of treatment, and justification for second- and third-line antibiotics must be recorded and audited.*[50]

The committee concurs and expects that training of pharmacists should take into consideration local patterns of antimicrobial resistance (see Recommendation 10), and that appropriate record-keeping by pharmacists demonstrates astute consideration when supplying antimicrobial medication. Additionally, future review of the program (as in Recommendation 28) should also keep antimicrobial stewardship front of mind.

Recommendation 3: That the model is implemented as soon as practicable via regulatory change, *without* the need for an additional trial period or pilot scheme, but *with* an outcome assessment mechanism.

[48] Better Health Channel, 'Urinary tract infections (UTI)', Victorian Government, 2021, accessed 9 February 2023.
[49] SAGAAR hearing, p.83.
[50] SAGAAR submission, p.5.

The committee notes the increase in pharmacy UTI programs in other jurisdictions in the past 12 months (see section 5.8) and recommends that a similar model is implemented in South Australia as soon as practicable.

This recommendation takes heed of advice from the SA Health Chief Pharmacist, Ms Naomi Burgess who spoke to the committee about the regulatory change that would need to occur in South Australia to enable pharmacists to supply antibiotics for UTIs. She reminded the committee that pharmacists would not be "prescribing", rather that under the scheme they would be enabled "to supply a medicine without a prescription".[51] She advised that the best option in order to implement a scheme would be to make amendments to the *Controlled Substances (Poisons) Regulations 2011*, which would then allow for protocol "stipulating what kind of training, what sort of medicines, what sort of patient."[52]

In regards to training, Professor Trent Twomey, President of the Pharmacy Guild of Australia, put to the committee that swift implementation would not be onerous, stating optimistically that, "[…] it could be implemented in a matter of weeks, because all clinical guidelines already exist, all the training modules already exist and all these platforms are national."[53] Prof Twomey added that the Guild and the Australasian College of Pharmacy have offered to make training free for pharmacists in South Australia "if they choose to opt in up-front".

The committee considered recommending a trial but found the Queensland pilot to be rigorous and considered that a South Australian model could be built on based on the learnings from that pilot, as well as the programs in other jurisdictions. The committee recommends that the Minister pays due regard to interstate services and their development.

Ms Burgess also advised the committee that due to the significant investment that has been made in other states, who have, or are trialling such a service, South Australia "would need to do a robust evaluation and learn, and continue to learn, from those other studies."[54]

See Recommendation 28 and 29 for further discussion regarding review following implementation.

Recommendation 4: As soon as practicable, the Minister directs the Chief Pharmacist to establish and lead an Implementation Team.

Recommendation 5: That the Implementation Team includes representatives from relevant SA Health professionals as well as doctor and pharmacist representatives, regional representation, and patient representation.

Recommendation 6: That sufficient funding and resources are made available to the Implementation Team to ensure timely and effective implementation, including sufficient engagement with relevant parties.

[51] Chief Pharmacist hearing, p. 151.
[52] Chief Pharmacist hearing, p. 153.
[53] Pharmacy Guild hearing, p.106.
[54] Chief Pharmacist hearing, p.155.

It is the committee's view that implementation of a community pharmacy UTI scheme needs a strong professional team and that this team collaborates with administrators, doctors, pharmacists, and patient representative. The committee recommends that this team be led by the SA Health Chief Pharmacist.

The committee considered lived patient experience as crucial to understanding how to alleviate barriers to access and has appreciated the value of patient's perspectives throughout the inquiry. This was confirmed by the Chief Pharmacist Ms Naomi Burgess who told the committee that, "…consumer focus is absolutely key to whatever we do in this space around medicines."[55]

While some doctors' groups have declined to be involved in programs interstate, the committee hopes that the widespread effectiveness of UTI pharmacy services in other jurisdictions will prompt more involvement from clinicians in South Australia. Ms Burgess told the committee that

> *…we [SA Health] always have general practice and AMA involved in anything we do around pharmacy. Even changing what pharmacists do, we like to have their input because it's our health system: it's not just what pharmacists are doing in isolation. It's very powerful.*[56]

Regional representation is also key to ensure that the program serves those outside of the metropolitan area, who often encounter more barriers to access for treatment than those in urban areas. Appropriate consideration should also be given to representation of Indigenous views and needs, given the higher rate of UTIs in the Aboriginal and Torres Strait Islander population.

This committee recommends that this team be adequately funded and resourced so that implementation of the program is prompt and effective. This may be achievable through existing budget allocations.

[55] Chief Pharmacist hearing, p. 161.
[56] Chief Pharmacist hearing, p.161.

Training of pharmacists for UTI medication supply

Recommendation 7: That an accredited online training course is made available to SA pharmacists for a period no less that one month prior to the public launch of the scheme.

Recommendation 8: That existing online training programs offered through the Australasian College of Pharmacy, the Pharmacy Guild of Australia and/or Pharmaceutical Society of Australia, which are accredited interstate, are modified as needed for SA and accredited for use in SA.

Recommendation 9:, That any future training programs include education on the following points:

a. Anti-microbial resistance management
b. The importance of referring a patient to a GP if risk factors are present or a pharmacist is not confident that an uncomplicated UTI is a likely diagnosis
c. The importance of ensuring privacy and confidentiality for patients in-pharmacy
d. The desirability of interior design features that support patient privacy (e.g. private consulting rooms, separate quiet consultation areas or privacy shields at counters)
e. The importance of accurately and confidentially recording patient interactions and providing records of interactions or supply to patients upon request, and/or via My Health Record wherever appropriate
f. Processing complaints and the proper reporting of adverse outcomes through established avenues.
g. Cultural competency and sensitivity

The committee considers that it would be prudent for pharmacists to be ready to provide treatment when the scheme commences and has been advised by training providers (the ACP, the PSA and the Guild) that the already available training programs offered in other jurisdictions can be used in South Australia. The committee believes that in the interest of antimicrobial stewardship, it should be modified as needed for use by South Australian pharmacists.

The committee recommends that these modifications should be made with emphasis on antimicrobial stewardship to take into consideration guidance from SAGAAR regarding local resistance patterns.

The committee also recommends the above points should be addressed in existing or future training, many of which are covered in other recommendations.

The committee wishes to draw particular attention to the last point, regarding “cultural competency and sensitivity” and notes the wording used on the Western Australian Department of Health website outlining their pharmacy UTI service, which states:

> **Gender diversity and cultural safety**
> Pharmacists must complete cultural safety and gender diversity training relevant to their place of practice, reflect on their competency and provide the service in ways that are inclusive, culturally safe, sensitive, and responsive.[57]

[57] ’Pharmacist initiated treatment of urinary tract infections program’.

The committee recommends that the South Australian program adopt a similar requirement to ensure that the program is inclusive and does not inadvertently discriminate against groups that may already experience suboptimal health outcomes.

Recommendation 10: That:

a. an agreement is entered into with the Australasian College of Pharmacy, the Pharmacy Guild of Australia and/or Pharmaceutical Society of Australia to provide the online training course free of cost to all SA-based pharmacists (regardless of their professional association membership) for a set period (e.g. 3 – 6 months)
b. that subsequent training courses are paid for by the employer

While Professionals Australia expressed concern that pharmacists would have to bear the costs of any additional training needed to provide a UTI treatment service,[58] the Pharmacy Guild has assured the committee that training would be available to all pharmacists (regardless of their membership of the Guild) free of charge initially.[59]

The committee acknowledges the existing training provided to pharmacists about UTIs via their university education. In their evidence to the committee, representatives from the University of South Australia (the only provider of a Bachelor of Pharmacy in the state) stated:

> *The University of South Australia acknowledges that the management of UTIs is an important issue in the community, so it actually takes a very prominent place within our program. Our students from the very first year are exposed to managing symptom-based requests for medicines and that includes medicines that can be used in the management of UTIs.*
>
> *From the very beginning of our program, students are trained in how to take a history from patients who may be presenting with symptoms of a UTI but also other related conditions, potentially, such as things like vaginal thrush. So, some of those very sensitive conversations that we were just speaking about are things that our students are very well versed in managing and it starts from that first year.* [60]

UniSA staff advised that by studying UTIs, students are also schooled in antimicrobial stewardship. They are then instructed how to dispense and supply antibiotics and advise patients regarding their safe and effective use.[61]

Obviously, not all pharmacists who work in South Australia will have attended the University of South Australia, and so additional training may be needed. However, UniSA staff suggested that some kind of credit model may be viable, in which graduates of an approved degree program that covers UTIs will not be required to do additional training, due to their university studies making them qualified to treat UTIs.[62]

[58] Professionals Australia hearing, p.57.
[59] Pharmacy Guild hearing, p.106.
[60] UniSA hearing, p. 55.
[61] UniSA hearing, p. 56.
[62] UniSA hearing, p.60.

Promotion and education

Recommendation 11: That the scheme is publicly advertised by the government, targeting South Australian women aged 18 – 65, and appropriate awareness and advertising methods are considered to target 18 – 65-year-old women, including but not limited to:

a. news media
b. mainstream paid advertising
c. social media and app-based advertising e.g. parenting and relationship apps
d. location-based advertising e.g. bus shelters and billboards
e. newsletter and electronic communication through organisations or venues busy women are likely to interact with as part of their daily lives e.g. school-based communication, universities, sports clubs, community centres and major employers

The committee considers that effective promotion of the scheme is integral: that visibility is crucial in order for a pharmacy service to ease burdens in general practice and emergency departments. The committee notes the many successful public health campaigns that have been rolled out by SA Health in previous years, particularly around COVID-19 and influenza, and recommended that public advertising of a UTI community pharmacy service be undertaken at the time of implementation.

The committee recommends that promotion should target potential users of the service and raise awareness of the scheme among the appropriate demographic, being South Australian women aged 18-65 years old.

Evidence from patient and pharmacist witnesses in Queensland, where the scheme has operated for some time, indicated a lack of awareness of the service by the public. Considering the level of news media coverage in Queensland, this was surprising to the committee. However, as the committee is aware, busy working women are often not consuming mainstream media coverage. Therefore, the committee recommends that consideration is given to the most effective ways to promote the new service to those it will assist.

Recommendation 12: That in-store advertising is funded by pharmacies themselves or their relevant professional organisations (e.g. counter displays, posters, online advertising and point-of-sale signage such as dangling signs on shelves stocking urine alkalinisers or cranberry supplements).

While the committee considered that appropriate promotion of the scheme was needed to improve community awareness, the committee recommends that in-store advertising be managed by pharmacies or their professional organisations, subject to regulations under the Therapeutic Goods Act.

SA Health should make materials and messaging available to the professional organisations in order to achieve consistency. This approach should ensure consistent messaging, but the flexibility for pharmacies to promote the service according to their own budgets and branding needs.

Recommendation 13: That educational materials are provided to all registered GPs in SA *directly* informing them of the program and the likelihood that pharmacists may refer complicated UTI cases to GPs.

Recommendation 14: That promotional messaging by SA Health stresses that the program is one more way to access treatment, not replacing GP services.

While there has been some opposition from medical organisations towards UTI community pharmacy services, the committee firmly believes this proposed scheme was intended to supplement, not replace, the healthcare provided by a trusted general practitioner. It was evident to the committee, from the discussions that they had with pharmacists, that complicated UTI cases, or symptoms suggesting other conditions, were directly referred to GPs, or in some cases, hospital emergency departments. For this reason, the committee recommends that GPs should be furnished directly with educational materials regarding the scheme, and that promotional messaging should emphasise that this scheme is not the sole point of access to UTI treatment.

Recommendation 15: That educational materials are provided to all pharmacists and pharmacy owners, including information on how to access free online training for a limited time.

To ensure the effectiveness of the scheme, the committee recommends that prior to implementation, pharmacists should be contacted and advised how to access training, to ensure adequate and appropriate participation.

This may be via the professional representative organisations or directly by SA Health.

Recommendation 16: That a website is developed with a searchable database of SA pharmacies offering UTI consultations, including a searchable map function.

In a hearing in Brisbane with Ms Ashley Pade, a user of the Queensland service, the committee heard about the value of the Pharmacy Guild's "Find A Pharmacy" website, which shows locations of pharmacies offering the service. Ms Pade advised the committee that she used this website following a friend's recommendation and was able to locate a pharmacy near her home that provided the service. She told the committee that she has also gone on to recommend the site to others.[63]

The Guild's "Find A Pharmacy" website is produced by the Pharmacy Guild, and therefore only features Guild members. The committee recommends that a similar website is developed

[63] Ashley Pade hearing, p. 124.

that takes in all pharmacies across the state offering the service and provides patients with a searchable map function for their convenience.

Recommendation 17: That appropriate UTI health education and promotion is provided in Aboriginal communities or towns with higher-than-average Aboriginal populations, due to the higher rate of UTIs among Aboriginal people and higher rate of complications.

Over the course of the inquiry, the committee repeatedly heard about the higher rates of UTIs in the Aboriginal and Torres Strait Islander population and recommends promotion of a UTI community pharmacy scheme in areas with higher than average First Nations population is provided accordingly.

This promotion can be educational but needs to ensure that it is conducted with cultural sensitivity front of mind and in consultation with Aboriginal Community Controlled Health Organisations (ACCHOs). The committee recommends that these organisations are contacted regarding promotion, and consulted as whether their services require further promotion in remote communities also.

The committee acknowledges that that treatment for UTIs, and healthcare in a broader sense, is delivered differently in remote Aboriginal communities in South Australia. In a hearing with the committee, Dr Jessica Leonard, Public Health Medical Officer at the Aboriginal Health Council of South Australia, made the following three recommendations regarding improved health outcomes for Aboriginal people more broadly:

> *I think to ensure that there's a consistent approach to all healthcare professionals receiving training in cultural awareness and cultural competence would be one thing, and I guess making sure that people have, again, mechanisms for access to support services in terms of whether that's Aboriginal liaison staff or interpreters where needed. Certainly, yes, working on training and upskilling the workforce of Aboriginal health professionals and really investing in that, because we know that those people make a big difference in communities. They have local knowledge and cultural understanding and are able to bring great service improvements in terms of training Aboriginal workforce and funding Aboriginal workforce.*[64]

The committee views Dr Leonard's recommendations as desirable goals for the healthcare sector at large, and hopes that the Minister would consider them sensible recommendations. The committee also asked Dr Leonard if she believed that it would be appropriate if pharmacist's enquired whether a patient identifies as Aboriginal or Torres Strait Islander. She replied,

> *there would need to be consultation about how that question might be asked and how the information might be used, but I think it's certainly an important consideration to be asking in some shape or form. Of course, people identify in different ways or decide what information they want to disclose in a context, but I think it's an important question to ask for both those medical factors and also the associated service access and Medicare factors for what people can access.*[65]

[64] AHCSA hearing, p. 179.
[65] AHCSA hearing, p. 178.

The committee suggests that the Minister, and/or the Implementation Team look at this in consultation with First Nations representatives.

Privacy and confidentiality

Recommendation 18: That regard is given to privacy and confidentiality for patients by pharmacists and pharmacy owners, e.g. that a private consulting room is utilised where possible, or measures taken to ensure the comfort and confidentiality of the patient in separate areas to other counter customers.

The committee recognises that urinary tract infections are for many, a private issue, and that some sufferers may find discussing them in a pharmacy rather embarrassing. With this in mind, the committee recommends that pharmacists take appropriate measures to ensure patients privacy and confidentiality under the scheme.

The committee had concerns that smaller pharmacies, particularly in rural areas, may not have the space or capital to retrofit a consulting room, and thereby patient's privacy may be jeopardised. Pharmacists who spoke to the committee assured members that even if a pharmacy may not have a separate consulting room, privacy can be manifested in other ways. Ms Helen Stone of the Pharmaceutical Society of Australia spoke to the committee on this point:

> *I think in smaller pharmacies where costs might be prohibitive in retrofitting but they might not have as much staff, you can say to people, 'I need to have a quiet conversation with you but I just have some people with me now. Can you give me 10 minutes and come back and then I will clear this space and we will spend some time together?'*
>
> *You can manage that in community pharmacy. If it's an emergency, if pharmacists don't have the right set up clinic room, I have certainly had people come into the staff space. I have used beauty rooms. You can find a solution and you can find a solution that works for your community. I think if you are a respected health professional in your community, then the community is actually quite forgiving around that and you can set some ground rules and say to people, 'I just need to go and talk to this person and I will be back with you shortly.'*
>
> *In a smaller community, it's absolutely vital that privacy is maintained and one of the principles that we really do work hard to instil into our pharmacy students and into our graduates is that privacy is paramount and people have a right to choose. We have conversations in pharmacies all the time and say, 'Do you want to go in a private area?' and some people are like, 'No, you're right. We will just talk about this here.' We say, 'Please, let's go into a quiet area.'*[66]

In another committee hearing, Mr Nick Panayiaris from the Pharmacy Guild concurred, stating

> *We are very, very sensitive—and I want to reiterate to the committee—that privacy is something we value very dearly from the point of view of that relationship with the patient. We don't risk that at the best of times. You always have the one or two who might not necessarily always understand that in terms of the context of talking to a patient sometimes, and they get it wrong, but the majority of pharmacists, and I would*

[66] PSA hearing, p. 100.

say the absolute majority of pharmacists, are very conscious of those private discussions.

They will take every step that is required, within the context of the patient being comfortable, to make sure we meet that, no matter what the services, whether it is a UTI service, an emergency contraceptive service or whatever it is. Especially in country areas, where communities are pretty tight, the last thing you would want is a neighbour or a relative actually overhearing one of those conversations.[67]

Staff from UniSA Pharmacy outlined how their use of a "model pharmacy" allows students to practice appropriate patient interactions, putting an emphasis on privacy early, in future pharmacist's tertiary study:

we have the ability for students to demonstrate their ability to conduct appropriate patient interactions, both in a semi-private environment—stepping aside, making sure who is around them—and a model which is taking them to a private consult room.

Recognising the fact that there is a difference in the way practice occurs in some settings. The consult room might be being used for a vaccination, so you need to have that timely conversation in a different part of the pharmacy. We train our students in how to manage those conversations in a sensitive manner, recognising that those are circumstances they will face, and that it is important that they are managed and that they are managed appropriately.[68]

The committee also notes that hitherto other medications that consumers may deem embarrassing or quite personal – such as medications to treat thrush, or emergency contraception (the "morning after pill") – have not required separate consulting rooms.

In a committee hearing, representatives from the RACGP expressed concerns regarding patient privacy in a community pharmacy setting but stated they do support access to emergency contraception through community pharmacy. They acknowledged that this too is considered by most members of the public to be a private matter but supported its sale through this channel.[69]

Costs to consumers

Recommendation 19: That under the scheme, pharmacists are able to charge a consultation fee in addition to the cost of any medication that is supplied, noting that this fee is generally around $20, and that the patient is made fully aware of the costs prior to the consultation.

In their evidence to the committee, Professionals Australia noted that that pharmacists are some of the lowest paid degree-qualified healthcare professionals in Australia, and that this is further complicated by the pharmacist workforce being highly feminised, with many working part-time.[70] The committee values the work that pharmacists do, and that further consultation time with UTI patients may be sporadic but adds to their workload. For this reason, the committee believes a "user pays" approach, as in Queensland, is appropriate. In Queensland, the patient pays a $20 fee for their consultation with the pharmacist.

[67] Guild hearing, p. 109.
[68] UniSA hearing, p.63
[69] RACGP hearing, p44-45.
[70] Professionals Australia hearing, p. 56.

Some submissions expressed concerns that pharmacists may feel forced to supply medication if charging for a consultation, however, pharmacists that the committee heard from assured them that this was not the case. The pharmacists whom the committee spoke with in Brisbane advised that they often ask some preliminary questions around age, or UTI frequency, to ascertain if the patient qualifies for the service, and if they were not, no consultation would occur.

In addition, the committee noted that as out of pocket medical fees rise, a $20 fee for a consultation with a pharmacist is considerably cheaper than a consult with a GP in some areas. Dr Sian Goodson of the RACGP spoke to the committee about the variances in billing across the state, advising,

> *it varies across the state enormously. In some areas there is very little bulk-billing now available to patients. Where I work, up in Elizabeth, many patients who have concession cards, pension cards or children are still bulk-billed. But it does vary across the state. The average out-of-pocket cost for patients up in the Spence electorate is about $24. It's much higher in other electorate—it can be as much as $39 or $40—but it does vary enormously.*[71]

The committee also noted the example of online only service Instant Scripts, who charge $19.95 for what they refer to as an "online prescription service". According to the Instant Scripts website, if a patient has not had a telehealth consultation with their business in the 12 months prior, they charge an additional $34 to review their medical history.[72]

The committee considers it prudent that pharmacists make their fees clear to patients prior to their consultation and advise that antibiotics will only be supplied if they meet the clinical criteria (what is now being referred to in some medical spaces as "informed financial consent").

Technology and data

Recommendation 20: That the Minister asks SA Health to work with software providers and pharmacy owners (or their representative bodies) to examine whether an automatic text message can be sent to patients 3 - 7 days after pharmacy consultation to follow-up with patient and alert them to see a GP if their symptoms are not resolving. Though the committee feels this follow-up is desirable, further examination of this option is required in terms of technology and cost.

The follow up rates in the UTIPP-Q were a contentious issue in submissions received by the from the AMA and the RACGP. However, the committee notes that follow up is not consistent across healthcare providers, with most GPs not "checking in" with their patients after a course of antibiotics. The onus is on the patient to obtain further care if symptoms persist.

Rather than a phone call, the committee suggests a text message checking in with the patient, an option that was confirmed as viable by the Pharmacy Guild:

> *It is a requirement of clinical guidelines that a treating clinician, whether it's a pharmacist or a general practitioner, follow up the patient within appropriate clinical guidelines to see whether or not treatment was successful. That is completely dependent on whether or not the woman answers the phone or whether or not she*

[71] RACGP hearing, p.40.
[72] Instant Scripts, 'Frequently Asked Questions', 2023, accessed 14 September 2023.

> *replies to the text message.* ***We can actually build into the software, which we have, an automated text message function that goes out to the patient within an appropriate time to say, 'Have symptoms resolved? Do you require a further consultation? Please click here and we will give you a call back.'*** *I am sure many of the women on your committee would say, 'Well, that's fine.' Most just don't respond because it's resolved and they go, 'It's fine,' and they ignore it.*[73]

The committee recommends that this is option is explored prior to the implementation of the scheme. The text message is not intended to replace the advice of the pharmacist to the patient regarding follow up care if symptoms do not resolve after the course of antibiotics.

Recommendation 21: That the computer-based checklist and associated software similar to that utilised in Queensland is adopted in SA and adapted as needed for SA.

When the committee visited pharmacies in Brisbane, members saw firsthand how effective a checklist is for pharmacists as they established whether a patient requires antibiotics for an uncomplicated UTI. The committee recommends that the electronic checklist used in Queensland is adopted and adapted as necessary for use by South Australian pharmacists. An example of this checklist (Criteria for treatment from the Australasian College of Pharmacy Pharmacist Treatment Guidance V2.0) is in Appendix 8.6.

Recommendation 22: That appropriate and confidential patient records are retained by the Pharmacy.

Recommendation 23: That pharmacy dispensing records are uploaded to My Health Record, if a patient has such a record.

The committee recommends that appropriate and confidential records are retained by the pharmacy after treating an uncomplicated UTI, and a record of this treatment is uploaded to the patient's My Health Record (if they have one). It is vital that provision, or refusal to provide, an antibiotic is recorded in a clear and private manner.

In a committee hearing, Professionals Australia expressed concerns regarding what they called "information asymmetry" and stated that use of My Health Record is vital so that pharmacists can access patient information and record any supply of antibiotics.[74] Their pharmacist representative, Mr Riccardo Seeber, cited other submissions received by the committee regarding risks of pharmacists supplying antibiotics, stating that use of MHR must be a requirement of a UTI pharmacy service and would address these risks.[75]

[73] Guild hearing, p. 114.
[74] Professionals Australia hearing, p.57
[75] Professionals Australia hearing, p.58.

Mr Seeber pointed out to the committee that My Health Record provides an auditable record of supply, allowing [76] Mr Inglis added that it offered, "a good check and balance for sure because it records the interactions and the outcome."[77] The committee notes that implementation of MHR has been largely successful, with 23.6 million My Health Records as of July 2023.[78]

Recommendation 24: That a record of the treatment and consultation are provided to the patient on request. This may include a copy of the checklist completed by the pharmacist during the consultation. A patient may choose to share this with their GP or health professionals.

To reiterate the point made regarding Recommendation 15: the committee considers the relationship between a patient and their GP is crucial to positive health outcomes in Australians, and that the treatment of uncomplicated UTIs by pharmacists is not intended to replace treatment by a GP, but to empower patients by giving them another option when seeing a GP might not be viable.

For this reason, the committee recommends that patients are further empowered by giving them a record of their treatment so that it can easily be shared with other health professionals or kept for the patient's own record.

Although the committee heard that many patients will see multiple doctors or attend multiple medical centres and medical records are already commonly fragmented, it also took on board evidence from doctor groups that GPs want to be able to see the medication supplied to their patients by other practitioners.

Ministerial Powers and Review

Recommendation 25: That de-identified data is drawn from the in-pharmacy checklist completions by the software providers or administrators and provided to the Minister on a regular basis for the first 12 months of the program and annually after that. Downloaded data may include the number of patients provided medication, which medication is provided, age and suburb of consumer and immediate referrals to GPs.

Recommendation 26: That the operation of the scheme is reviewed 24 months after implementation and a report is provided to the Minister.

The committee recommends that following the initial 24 months of the program, data regarding the program should be provided to the Health Minister, and annually from then on. This data may include details regarding the medication provided and to how many patients, and

[76] Professionals Australia hearing, p.59.
[77] Professionals Australia hearing, p.62.
[78] Australian Digital Health Agency, 'My Health Record | The Big Picture, August 2023', August 2023, accessed 15 September 2023.

demographics regarding patients. However, this data should be de-identified for privacy purposes.

Additionally, the committee recommends a thorough review of the program following implementation.

Recommendation 27: That the Minister has the power to add or remove or substitute approved medications in urgent situations, such as shortages of specific antibiotics, but must advise the Parliament at the earliest opportunity.

The committee notes that medication shortages have become more commonplace worldwide since the COVID-19 pandemic.[79]

A large majority of prescription drugs taken by Australians have been affected by supply chain issues exacerbated by COVID-19, which continue to impact on their availability. The TGA has a publicly accessible database of reported shortages, and two of the antibiotics used to treat UTIs, trimethoprim and cephalexin, are listed on this database.[80]

The committee does not expect that by allowing pharmacists to supply these medications, that these shortages would be prolonged or worsened.

To ensure that patients are receiving the best possible care, the committee recommends that the Minister be able to add, remove or substitute approved medications under a UTI pharmacy service, and the Parliament made aware of any changes.

Other related matters

Recommendation 28: That the Minister considers allowing prescription renewal by pharmacists for the oral contraceptive pill.

Due to the precedent set in other Australian states and acknowledging that barriers to access exist for women's reproductive health also, the committee recommends that the Minister considers allowing pharmacists to supply the contraceptive pill to patients. As this was not the focus of the committee, further examination of other state's policy is required to ascertain what would be appropriate in South Australia. However, evidence received by the committee from the Pharmaceutical Society of Australia advocates that,

> *that pharmacists be authorised to resupply a standard commercial pack of an oral contraceptive pill (OCP) without a prescription, to individuals who have been*

[79] Australian Commission on Safety and Quality in Healthcare, 'What if my antimicrobials (antibiotics) are out of stock?', 2023, accessed 14 September 2023.
[80] Therapeutic Goods Administration, Medicine shortage reports database, Commonwealth of Australia | The Department of Health and Aged Care, 2023, accessed 6 July 2023.

prescribed this medicine within the last 24 months, where it is safe and appropriate to do so. The supplied OCP should be the person's existing OCP.[81]

The Pharmacy Guild of Australia advocates for up to three years currency on a prescription for OCP re-supply. The committee encourages the Minister to consider the information received by the committee on this matter.

Recommendation 29: That the Minister considers the outcomes of the 'North Queensland Community Pharmacy Scope of Practice Pilot' assessing the provision of 25 additional medications by pharmacists and the appropriateness of implementation in SA.

The committee recommends that the Minister considers the outcomes of the North Queensland Community Pharmacy Scope of Practice Pilot and assess whether the provisions detailed in the pilot would be appropriate in a South Australian pharmacy setting.

Although this pilot was not the focus of the committee's work, a large number of witnesses expressed their views about the so-called 'North Queensland trial' and this information may be useful to the Minister and Parliament.

[81] PSA submission, p. 1.

7. REFERENCES

'ACT Pharmacy UTI and Contraceptive Pill Trial', ACT Government | Health, 8 August 2023, accessed 11 August 2023.

ABC Health and Wellbeing, 'Cranberry for UTI's: What's the evidence?', *ABC News*, 24 November 2016, accessed 21 December 2022.

Australian Bureau of Statistics, Patient Experiences 2021-22 financial year, ABS website, 18 November 2022, accessed 10 August 2023.

Australian Commission on Safety and Quality in Healthcare, 'What if my antimicrobials (antibiotics) are out of stock?', 2023, accessed 14 September 2023.

Australian Digital Health Agency, 'My Health Record | The Big Picture, August 2023', August 2023, accessed 15 September 2023.

Better Health Channel, 'Urinary tract infections (UTI)', Victorian Government, 2021, accessed 9 February 2023

Deloitte Access Economics, *General Practitioner workforce report 2022*, Deloitte Access Economics for Cornerstone Health, May 2022, accessed 1 September 2023.

Fact sheet Urinary Tract Infections, Kidney Health Australia, December 2018, accessed 1 September 2023.

Government of Western Australia | Department of Health, 'Pharmacist initiated treatment of urinary tract infections program', Department of Health, 2023, accessed 30 August 2023.

Guy Barnett, Minister for Health, 'Women's health in focus as part of pharmacy reforms', Jeremy Rockliff, Premier of Tasmania website, 14 September 2023, accessed 15 September 2023.

Hon. Amber -Jade Sanderson, Minister for Health; Mental Health, 'Pharmacy option for UTI diagnosis for Western Australian women', Government of Western Australia, 4 August 2023, accessed 10 August 2023.

Instant Scripts, 'Frequently Asked Questions', 2023, accessed 14 September 2023.

Institute for Molecular Bioscience, *Common bacterial diseases*, University of Queensland website, n.d., accessed 1 September 2023.

J Attwooll, 'Further downward spiral in bulk billing rates', *newsGP*, RACGP website, 17 May 2023, accessed 10 August 2023.

J Attwooll, 'Tip of the iceberg': GPs highlight pharmacy UTI prescribing incidents, *newsGP*, RACGP website, 21 March 2022, accessed 15 December 2022.

Jean Hailes, *Urinary tract infections (UTIs)*, Jean Hailes for Women's Health website, 2023, accessed 1 September 2023.

L Nissen, E Lau, and J Spinks, Jean, *The management of urinary tract infections by community pharmacists: A state-wide trial: Urinary Tract Infection Pharmacy Pilot - Queensland (Outcome Report)*, Queensland University of Technology, 21 April 2022, accessed 18 January 2023.

L Stone and J May, "6 reasons why it's so hard to see a GP", *The Conversation*, 9 February 2023, accessed 5 September 2023.

New South Wales Government | NSW Health, 'Information for the community - UTI treatment', NSW Health, 28 July 2023, accessed 1 August 2023.

New South Wales Government | NSW Health, 'NSW Pharmacy Trial', NSW Health, 28 July 2023, accessed 1 August 2023.

New South Wales Government | NSW Health, 'Pharmacy reform to expand community health care', NSW Health, 13 November 2022, accessed 15 February 2023.

P Breadon and L Fox, 'If you live in a bulk-billing 'desert' it's hard to see a doctor for free. Here's how to fix this', *The Conversation*, 21 April 2023, accessed 10 August 2023.

Pregnancy, Birth and Baby, 'Urinary tract infections (UTIs) during pregnancy', healthdirect Australia, n.d., accessed 6 September 2023.

Premier of Victoria | The Hon Daniel Andrews, 'New Pharmacist Pilot To Deliver More Affordable Care', State Government of Victoria, 30 May 2023, accessed 1 June 2023.

SA Health, Urinary Tract Infections (adult): Empirical Treatment Clinical Guideline Version 2.1, Government of South Australia | SA Health, 25 August 2022, accessed 9 February 2023.

SA Health, Urinary tract infection (UTI) - including symptoms treatment and prevention, Government of South Australia | SA Health, accessed 21 December 2022.

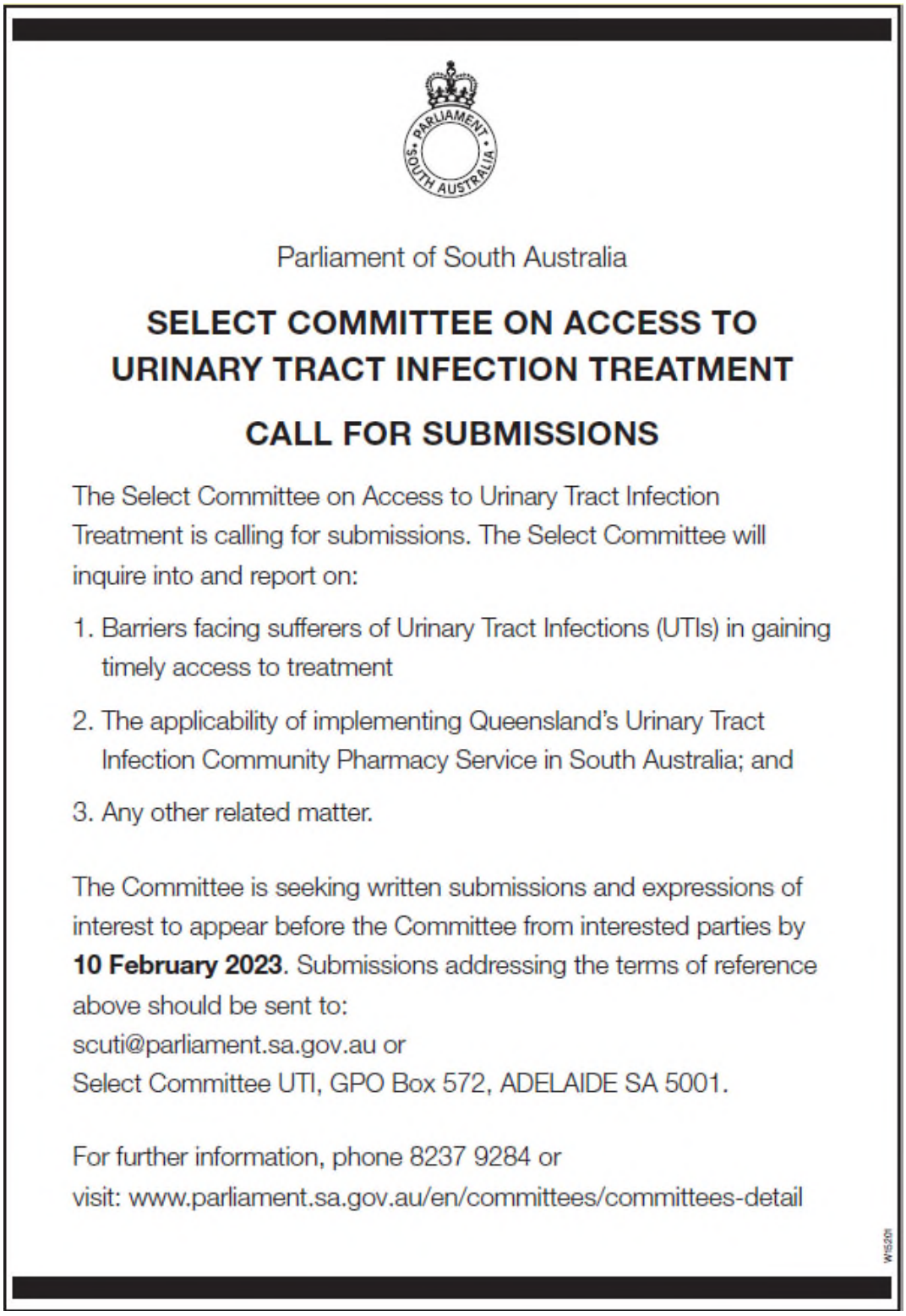
State Government of Victoria | Department of Health, 'Victorian Community Pharmacist Statewide Pilot', Victorian Department of Health website, 20 September 2023, accessed 22 September 2023.

Therapeutic Goods Administration, Medicine shortage reports database, Commonwealth of Australia | The Department of Health and Aged Care, 2023, accessed

Urinary tract infection (UTI), healthdirect Australia, n.d., accessed 28 July 2023.

8. APPENDIX

8.1 Call for submissions advertisement



Parliament of South Australia

SELECT COMMITTEE ON ACCESS TO URINARY TRACT INFECTION TREATMENT

CALL FOR SUBMISSIONS

The Select Committee on Access to Urinary Tract Infection Treatment is calling for submissions. The Select Committee will inquire into and report on:

1. Barriers facing sufferers of Urinary Tract Infections (UTIs) in gaining timely access to treatment
2. The applicability of implementing Queensland's Urinary Tract Infection Community Pharmacy Service in South Australia; and
3. Any other related matter.

The Committee is seeking written submissions and expressions of interest to appear before the Committee from interested parties by **10 February 2023**. Submissions addressing the terms of reference above should be sent to:
scuti@parliament.sa.gov.au or
Select Committee UTI, GPO Box 572, ADELAIDE SA 5001.

For further information, phone 8237 9284 or
visit: www.parliament.sa.gov.au/en/committees/committees-detail

8.2 Submissions received via email

1	Jacinta, UTI sufferer
2	Professor Timothy Miles, Emeritus Professor (Physiology), University of Adelaide
3	Brianna, UTI sufferer
4	Zena, UTI sufferer
5	Gabrielle, UTI sufferer
6	Dr Nick Tellis, GP and co-owner, PartridgeGP
7	SA Health
8	Karen, UTI sufferer
9	Australian Medical Association (South Australia)
10	Dr Susan Mathers, GP, Kings Park Clinic
11	Urological Society of Australia and New Zealand
12	Dr Stephen Byrne, GP
13	Naomi, UTI sufferer
14	Sarah, UTI sufferer
15	Dr Sarah Johnson, GP
16	Pamela
17	South Australian expert Advisory Group on Antimicrobial Resistance (SAAGAR)
18	Dr Dianne Howski, GP registrar
19	Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG)
20	Pharmacy, Clinical and Health Sciences, University of South Australia
21	Rural Doctors' Association of South Australia (RDASA)
22	Continence Foundation of Australia
23	Royal Australian College of General Practitioners (RACGP)
24	Pharmacy Guild of Australia (SA Branch)
25	Alan Yip, pharmacist
26	Pharmaceutical Society of Australia (PSA), South Australia and Northern Territory Branch
27	Professionals Australia
28	Wendy, UTI sufferer
29	Society of Hospital Pharmacists of Australia (SHPA)

8.3 Submissions received via Forms

1	Nicki, UTI Sufferer
2	Name removed, UTI Sufferer
3	Name removed, UTI Sufferer
4	Name removed, UTI Sufferer
5	Zoe, UTI Sufferer
6	Name removed, UTI Sufferer
7	Name removed, UTI Sufferer
8	Name removed, UTI Sufferer
9	Name removed, UTI Sufferer
10	Heather, UTI Sufferer
11	Sameer Pandey, Pharmacist
12	Name removed, Pharmacist
13	Name removed, Pharmacist
14	Nam Huynh, Pharmacist
15	Anghus Hall, Pharmacist

16	Sharyn, UTI Sufferer
17	Prabhjot Kaur
18	Name removed, UTI Sufferer
19	Name removed, UTI Sufferer
20	Name removed, Pharmacist
21	Name removed, Pharmacist
22	Joy Stephen, Pharmacist
23	Name removed, UTI Sufferer
24	Michele Rinaldi, Pharmacist
25	Hanh Tran
26	Jonathan Gill, Pharmacist
27	Name removed, UTI Sufferer
28	Chris Tsamandanis, Pharmacist
29	Name removed
30	Name removed, UTI Sufferer
31	Name removed, UTI Sufferer
32	Name removed, UTI Sufferer
33	Angeline Becker, Pharmacist
34	Rebecca Rogers, Pharmacist
35	Danielle, UTI Sufferer
36	Name removed, Pharmacist
37	Leigh Stone, Pharmacist
38	Name removed, UTI Sufferer
39	Name removed, UTI Sufferer
40	Name removed, UTI Sufferer
41	Name removed, UTI Sufferer
42	Kerry, UTI Sufferer
43	J David Underhill
44	Antonio Cocchiaro, GP
45	Name removed, UTI Sufferer
46	Margaret, UTI Sufferer
47	Shing Ka Chong, Pharmacist
48	Quynh Nguyen, Pharmacist
49	Raymond Truong, Pharmacist
50	Heidi, UTI Sufferer
51	Name removed, Pharmacist
52	Name removed
53	Name removed
54	Name removed, Pharmacist
55	Adam Forrest, Pharmacist
56	Name removed, UTI Sufferer
57	Name removed
58	Name removed
59	Yeen Kooi Wah
60	Emma Pearce

61	Salma Abou Abdallah, Pharmacist
62	Name removed, Pharmacist
63	Name removed
64	Name removed, UTI Sufferer
65	Name removed, UTI Sufferer
66	Name removed
67	Matthew Boulter, Pharmacist
68	Morag Horton, Pharmacist
69	Name removed
70	Con Kassapis
71	Name removed, Pharmacist
72	Peter Moschakis, Pharmacist
73	Name removed, Pharmacist
74	Name removed, UTI Sufferer
75	Name removed
76	Name removed
77	Jenny Trieu
78	Name removed, Pharmacist
79	Paul Drury, Pharmacist
80	Mark Bou Karroum, Pharmacist
81	Name removed
82	Name removed
83	Geoffrey Rosser, Pharmacist
84	Name removed
85	Darius Wilbik, Pharmacist
86	Name removed, Pharmacist
87	Josh Hutchesson
88	Name removed
89	Name removed
90	Name removed
91	Name removed
92	Name removed
93	Name removed
94	Patrick Carrig, Pharmacist
95	Name removed
96	Name removed
97	Jackie Totman, Pharmacist
98	James Caneron, Pharmacist
99	Maurice Veronese, Pharmacist
100	Name removed
101	Joy, UTI Sufferer
102	Sharon, UTI sufferer
103	Name removed
104	Name removed
105	Jie Yi Tan, pharmacist

106	Name removed
107	Robyn, sufferer
108	Name removed
109	Jennifer Maloney
110	Name removed, Pharmacist
111	Name removed, UTI Sufferer
112	Doreen, UTI Sufferer
113	Oresti Tantalos, Pharmacist
114	Morgan Platten
115	Shannon, UTI sufferer
116	Name removed
117	Angeline Becker
118	Name removed, UTI Sufferer
119	Deb, UTI Sufferer
120	Joseph Whitehouse

“Name removed” on request. See 8.5 for Form template

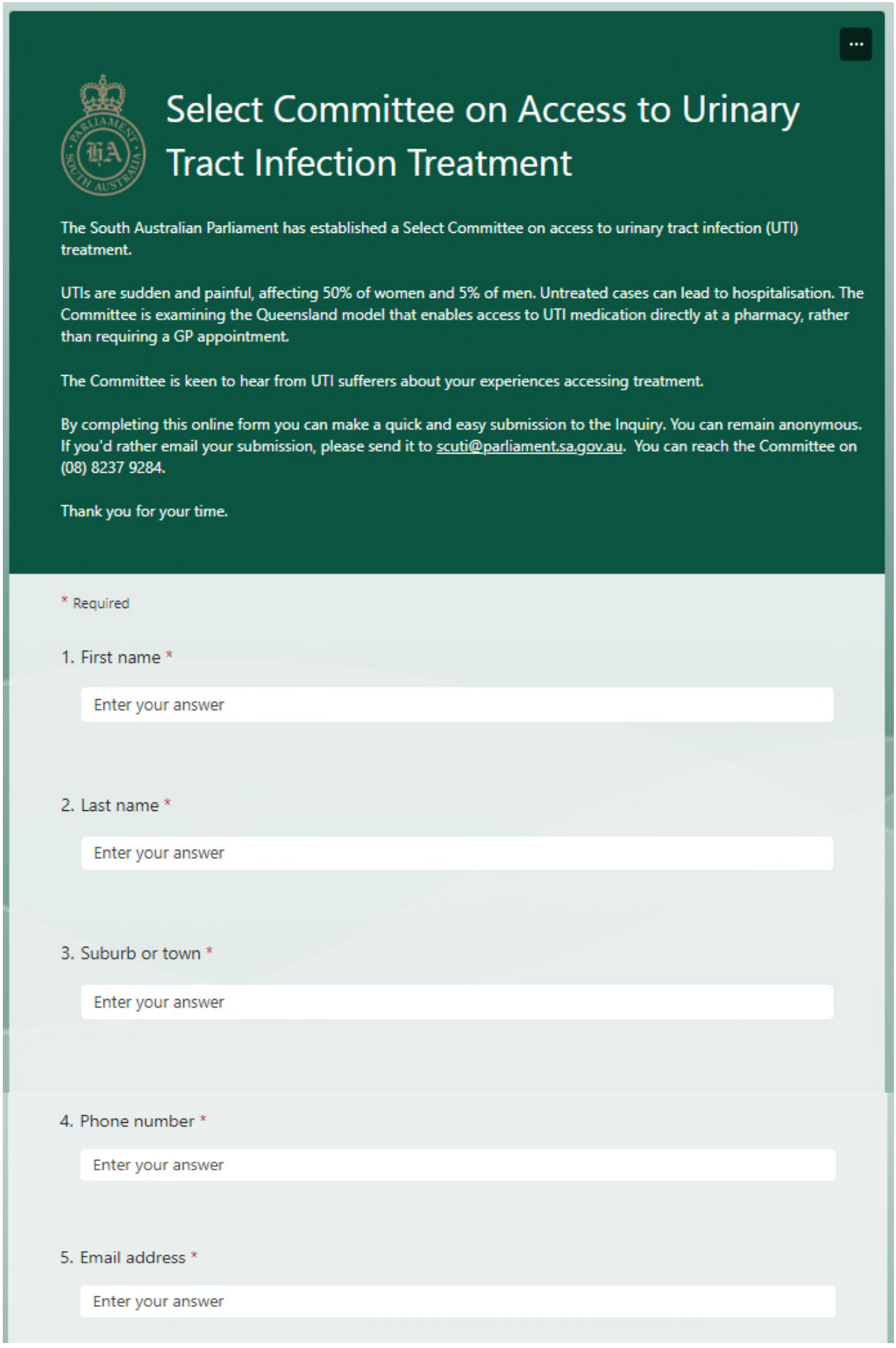
8.4 Hearings

All held in the Kingston Room, Old Parliament House, Adelaide, except those on 28 July 2023, which were held in the Dandiir Room, Queensland Parliament.

Date	Witness
8 February 2023	Prof Lisa Nissen, Director EvolveHealth (Health Workforce Optimisation)* Dr Jean Spinks, Senior Research Fellow* *Centre for Business and Economics of Health (CBEH) – University of Queensland*
22 March 2023	Dr Michelle Atchison, President* Dr Bridget Sawyer, Councillor and Chair of Committee of General Practice* *Australian Medical Association (AMA) SA*
22 March 2023	Dr John Miller, Urological Surgeon* *Urological Society of Australia and New Zealand (SA)*
3 May 2023	Dr Sian Goodson, Chair, SA Faculty Dr Nicole Higgins, President *Royal Australian College of General Practitioners (RACGP)*
3 May 2023	Dr Alison Edwards, General Practitioner *Rural Doctors Association of South Australia (RDASA)*
31 May 2023	Mr Paul Inglis, Director Mr Riccardo Seeber, Pharmacy Division* *Professionals Australia*
31 May 2023	Assoc Prof Michael Ward, Dean of Programs (Pharmacy and Biomedical Sciences) Prof Debra Rowett, Discipline Lead: External Relations *UniSA Clinical and Health Sciences, University of South Australia*
6 June 2023	Ms Nadine Hillock, Program Manager, National Antimicrobial Utilisation Surveillance Program, Department for Health and Wellbeing Dr Morgyn Warner, Chair *South Australian Expert Advisory Group on Antimicrobial Resistance (SAAGAR)*
14 June 2023	Dr Manya Angley, SA/NT Branch President-elect (from 1 July 2023) Ms Helen Stone MPS State & Territory Manager SA/NT *Pharmaceutical Society of Australia*
28 June 2023	Prof Trent Twomey, National President* Mr Peter Schwarz, Branch Director, SA Mr Nick Panayiaris, State Branch President, SA Ms Salma Abou Abdallah, Branch Committee Member *The Pharmacy Guild of Australia*
28 July 2023	Assoc Prof Treasure McGuire, Board Director Ms Suzanna Nash, Acting Chief Pharmacist *Australasian College of Pharmacy*
28 July 2023	Ms Ashley Pade, Queensland Pharmacy Service user
28 July 2023	Ms Sarah-Jane Bauer, Queensland Pharmacy Service user
25 August 2023	Ms Nicki King, UTI sufferer
25 August 2023	Ms Naomi Burgess, SA Health Chief Pharmacist *Department for Health and Wellbeing, Government of South Australia*
30 August 2023	Ms Nadia Clancy MP, Member for Elder
30 August 2023	Dr Jessica Leonard, Public Health Medical Officer *Aboriginal Health Council of South Australia*

*Witness attended via videoconferencing

8.5 Screenshot of MS Form submission template



Select Committee on Access to Urinary Tract Infection Treatment

The South Australian Parliament has established a Select Committee on access to urinary tract infection (UTI) treatment.

UTIs are sudden and painful, affecting 50% of women and 5% of men. Untreated cases can lead to hospitalisation. The Committee is examining the Queensland model that enables access to UTI medication directly at a pharmacy, rather than requiring a GP appointment.

The Committee is keen to hear from UTI sufferers about your experiences accessing treatment.

By completing this online form you can make a quick and easy submission to the Inquiry. You can remain anonymous. If you'd rather email your submission, please send it to scuti@parliament.sa.gov.au. You can reach the Committee on (08) 8237 9284.

Thank you for your time.

* Required

1. First name *

Enter your answer

2. Last name *

Enter your answer

3. Suburb or town *

Enter your answer

4. Phone number *

Enter your answer

5. Email address *

Enter your answer

6. The Select Committee will inquire into and report on:

1. Barriers facing sufferers of Urinary Tract Infections (UTIs) in gaining timely access to treatment

2. The applicability of implementing Queensland's Urinary Tract Infection Community Pharmacy Service in South Australia; and

3. Any other related matter.

What would you like to tell the Select Committee about this? *

Enter your answer

7. I'm interested in giving evidence to the Committee *

- ○ Yes
- ○ No
- ○ I'd like to know more about appearing before the Committee

8. Your contact information (suburb, phone, email) will not be made public and is only collected for Committee staff to contact you if required.

The content of your submission will be published on the South Australian Parliament website. If you wish to have your name suppressed from publication, please let us know. *

- ○ I'm happy for my name to be published with my submission
- ○ I'd like my name removed from my submission on publication

Submit

8.6 SA Health data on emergency department presentations, received via email from the Chief Executive 1 September 2023

Kidney & Urinary Tract Infections (AECC Group) ED Presentations

		No. 2021/22 FY Presentations	No. 2021/22 FY Presentations Admitted	% 2021/22 FY Presentations Admitted
E1130A	Kidney and urinary tract infections Complexity level A	2358	1862	79.0%
E1130B	Kidney and urinary tract infections Complexity level B	2712	889	32.8%
E1130C	Kidney and urinary tract infections Complexity level C	3794	15	0.4%
	Sum:	**8864**	**2766**	**31.2%**

E1130 codes - Principal Diagnosis
Based on Australian Emergency Care Classification (AECC) for Kidney & Urinary Tract Infections.
The AECC groups Emergency Department ICD-10-AM Principal Diagnosis Short List providing a nationally consistent approach to principal diagnosis reporting for emergency departments.

Complexity Levels (Splits)
A split within an Emergency Care Diagnosis Group (ECDG) that represents different levels of patient complexity characterised by cost.
Represented by the characters A, B, C and D. 'A' represents the highest complexity level and each subsequent letter represents the next complexity level.
The complexity levels are based on a score assigned to each presentation which is calculated using the patient's type of visit, episode end status, triage category, principal diagnosis,
transport mode and age.

8.6 Criteria for treatment (from the Australasian College of Pharmacy Pharmacist Treatment Guidance V2.0)

Eligible patients are females, 18 to 65 years old, presenting with uncomplicated cystitis and no other relevant history. Table 1 provides a more detailed summary of the inclusion criteria for pharmacists to supply antimicrobials for uncomplicated cystitis and exclusion criteria for patients requiring referral for further assessment under the guidance.

Summary of inclusion and exclusion criteria for pharmacist treatment of uncomplicated cystitis

Criteria	Inclusion	Exclusion (requires referral)
Cystitis	• Uncomplicated	• Complicated
Sex (biological)*	• Female	• Male
Age	• 18-65 years	• <18 years • >65 years
Pregnancy status	• Not pregnant	• Pregnant • Postpartum (commonly 4-6 weeks after birth)
Symptoms	Presenting with 2 or more symptoms of cystitis: • Dysuria • Urinary frequency • Urinary urgency • Suprapubic pain	• Presenting with only 1 symptom of cystitis • Fever (>38˚C) • Chills • Nausea • Vomiting • Back/side pain • Vaginal itch and/or discharge (consider appropriateness of S3 Pharmacist Only thrush or bacterial vaginosis treatment or refer to a medical practitioner)
UTI history		• Recurrent UTI o 2 or more UTIs in previous 6 months; OR o 3 or more UTIs in previous 12 months • Reoccurrence of UTI symptoms within 2 weeks of completing appropriate antimicrobial treatment

Criteria	Inclusion	Exclusion (requires referral)
		• Any other prior non-responsiveness to UTI treatment • Multidrug resistant infection within the previous 3 months
Medicines		• Antimicrobial use within the previous 3 months • Frequent antimicrobial use • Intrauterine device *in situ* • Immunosuppressant medicines • Medicines that increase the risk of UTI e.g. SGLT2 inhibitors

Other relevant medical history		• Any STI risk
		• Immunocompromise
		• History of:
		  o urinary tract obstruction
		  o pyelonephritis
		  o urinary tract abnormality
		  o urolithiasis
		  o urinary catheterisation (last 48 hours)
		  o nephrostomy tube
		  o ureteral stent
		  o renal disease or impairment
		  o spinal cord injury
		  o asplenia
		• Diabetes
		• Any overseas travel within the previous 3 months
		• Overseas travel within the previous 6 months in regions with high prevalence of antibiotic resistance#
		• Recent inpatient of a hospital (within previous 4 weeks) or other health care facility (within previous 3 months) or frequent or long-term care facility resident

*Anatomical characteristics

#e.g. from Southeast Asia and South Asia, particularly if they received medical care or treatment with antibiotics in that region.

8.7 Empirical antimicrobial cystitis therapy (from the Australasian College of Pharmacy Pharmacist Treatment Guidance V2.0)[82]

Recommendation of empirical therapy for UTI is ideally guided by antimicrobial susceptibility testing of organisms recently isolated from a patient urine sample. Or, if antibiotic susceptibility is not available, likely susceptibility from local antibiogram data should be used for guidance. [7] Choice of empirical therapy is also based on efficacy, convenience, cost, availability, and potential for harm (e.g. adverse effects and risk of development of antimicrobial resistance). [2]

Table 2 describes the empirical antimicrobial regimens used to treat patients included in the guidance (based on Australian and international guidelines – See Appendix 2, Table 4 for more information).

The potential benefits versus risks, including adverse effects and drug interactions, should be considered before recommending empirical antimicrobial treatment for each patient. Key contraindications and some precautions when treating cystitis with antimicrobials are included in Table 2.

Pharmacists should note this is not an exhaustive list and are advised to consider all relevant safe use of medicine precautions when recommending empirical UTI therapy. Precautions for use of antimicrobials may exclude some patients from the service.

All symptoms should respond within 48 hours of commencing antimicrobial therapy. [8]

Table 2: Empirical antimicrobial regimens used to treat patients with uncomplicated cystitis included in the guidance (refer to Table 1 for inclusion and exclusion criteria)

Antimicrobial	Dose	Contraindications and precautions [9,10]
<u>First line</u> Trimethoprim* Excluding patients who have taken trimethoprim in the previous 3 months Although ≈ 20% of *E*. coli urine isolates from adults in the	300mg daily (at night) for 3 nights	<u>Contraindications</u> • Previous serious adverse reaction to trimethoprim-containing medicines • Megaloblastic anaemia due to folate deficiency • Other severe blood disorders • Renal impairment (CrCl < 15mL/min) • Porphyria

[82] For References included in this document and the Criteria document, see https://www.acp.edu.au/uti-guidance/#Criteria%20for%20treatment

Antimicrobial	Dose	Contraindications and precautions [9,10]
community are resistant to trimethoprim, it continues to be recommended as empirical therapy for acute cystitis as the risk of adverse outcomes from treatment failure is low. [2]		• Pregnancy (potential for folate depletion with this antibiotic) <u>Precautions</u> • Hepatic impairment • Dose adjustment should be considered for creatinine clearance of 15-30mL/min • Hyperkalaemia – Trimethoprim causes retention of potassium. Concomitant renal impairment, potassium supplements, and other medicines that cause potassium retention may increase the risk of hyperkalaemia (average onset 4-5 days, therefore less likely with 3-day course) • May worsen folate deficiency and blood dyscrasias
<u>Second line</u> Nitrofurantoin* When trimethoprim is contraindicated	100mg every 6 hours for 5 days	<u>Contraindications</u> • Previous serious adverse reaction to nitrofurantoin • Renal impairment (CrCl < 60mL/min) • Glucose-6-phosphate dehydrogenase (G6PD), enolase, or glutathione peroxidase deficiency (may lead to haemolytic anaemia) • Anuria or oliguria • Avoid in breastfeeding if infant is < 4 weeks old or has G6PD deficiency <u>Precautions</u> • Risk of polyneuropathy increases in renal failure (often accompanied by diabetes, electrolyte imbalance and vitamin B deficiency) • Medicines that alkalinise (e.g. antacids, urinary alkalinisers) reduce efficacy • Medicines that acidify (e.g. probenecid) may reduce excretion of nitrofurantoin leading to toxicity

Antimicrobial	Dose	Contraindications and precautions [9,10]
<u>Third line</u> Cefalexin When both trimethoprim and nitrofurantoin are contraindicated Note: In Western Australia, registered pharmacists working in community pharmacy are NOT authorised to supply cefalexin for the treatment of uncomplicated urinary tract infection.	500mg every 12 hours for 5 days	<u>Contraindications</u> • Previous hypersensitivity to cephalosporins or immediate or severe hypersensitivity to penicillins

*In Western Australia, the first line antibiotic treatment recommendation is nitrofurantoin and the second line recommendation is trimethoprim. This is due to local resistance patterns and antibiogram data.